# A Course of Lectures
ON THE
# ANATOMY AND SURGERY OF THE HUMAN FOOT.

*Delivered at the Royal College of Surgeons of England in June, 1866,*

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## LECTURE V.—PART I.

MR. PRESIDENT AND GENTLEMEN,—Thus Mr. Syme accuses Pirogoff of reckless surgery in bringing forward his plan of operation, and Pirogoff, in his turn, accuses Malgaigne of plagiarism, and of vaunting his method at the expense of others, in proposing *his* operation of subastragaloid amputation.

In treating of amputation at the ankle-joint, at page 299 of the second volume of his "Operative Surgery," dated 1839, Velpeau says that M. de Lignerolles had communicated to him an improvement which might be the means of restoring this operation to practice. "Leaving the astragalus, he would only remove the os calcis with the foot; and would thus have, instead of the malleolar projections, a nearly flat broad surface at the end of the stump. In this case the flaps must be made from the sides of the foot, and be reflected towards the malleoli before the foot is disarticulated." The operation was performed for the first time by Textor in the year 1841; and in 1846 Malgaigne read a paper before the Academy of Medicine in Paris describing his method, which is that indicated by Lignerolles, and consists in removing all the bones of the foot except the astragalus, the connexions of which with the tibia and fibula he leaves unmolested, and thus preserves the ankle-joint intact. He performed his first operation in 1845, and the following is his plan of proceeding, taken from the seventh edition of his Manual:—He obtains his flap from the inner part of the sole of the foot. Placing his knife over the tendo Achillis, he cuts through skin, tendon, and fat, down to the bone or upper surface of the os calcis; he then continues the incision along the outside of the foot just below the external malleolus, turns it up over the dorsum of the foot a little in front of the medio-tarsal joint, then over the inner border of the foot, and across the sole of the foot for the inner two-thirds of its breadth. By this incision he divides everything down to the bone. Then, transferring his knife to the inner extremity of the first incision (over the tendo Achillis), he cuts obliquely downwards, at an angle of forty-five degrees, on to the sole of the foot until he joins the other incision, thus completing his flap. This he reflects first from the sole of the foot, taking care to include all the soft parts except some of the tendons nearest the bone; next from the inner side and dorsum of the foot, until the articulations between the calcis and astragalus, and between the latter and the scaphoid, are exposed. This flap being held back by an assistant, he proceeds to open the medio-tarsal articulation, or that between the astragalus and the scaphoid, and at the same time divides the external calcaneo-astragaloid ligament; and, introducing his knife horizontally beneath the head of the astragalus and between this bone and the os calcis, he cuts backwards, following the direction of the anterior calcaneo-astragaloid articulating surface, through everything he meets with, until, the division of the anterior fibres of the interosseous ligament allowing the bones to be separated, the operation is completed without further difficulty.

He admits that the flap may be made in front from the skin covering the dorsum of the foot, or behind from the integuments covering the heel, as in the tibio-tarsal amputation; but he prefers the mode of proceeding just related.

It will be observed that, with the exception of one flap being made in this method instead of two, the operation here described in no way differs from that suggested by Lignerolles, whose name, curiously enough, is entirely omitted from the paper. Nor is the slightest allusion made to Textor's operation, or to the announcement by Velpeau; although, as we have already seen, the former was performed in 1841, whilst the latter was published in the year 1839—seven years before Malgaigne submitted his proceeding to the Academy of Sciences.

Subastragaloid amputation, although an excellent proceeding in proper cases, has not been warmly supported in France; whilst in England it scarcely appears to be known, if I may judge from the replies to my inquiries. Malgaigne says that he has performed it six times; and that exclusive of these M. Vacquez has collected eleven other observations, including one performed by Nélaton. In England, as far as I know, it has, up to this time, been performed only by Mr. Simon, Dr. John Traill of Arbroath, Mr. Garner of Stoke-upon-Trent, and by myself. As the operation is in reality a very good one, and one which in proper cases may be adopted with great advantage to the patient in preference to either Syme's or Pirogoff's, we can only attribute this neglect to the fact of its not being sufficiently known. Its advantages may be very briefly stated, that whereas both in Syme's and Pirogoff's proceedings the ankle-joint is of necessity sacrificed, in subastragaloid amputation, not only the ankle-joint, but at the same time an increased length of limb is preserved.

True it is we are told that Hyrtl, from purely anatomical considerations, rejects this operation altogether, and it would seem that Pirogoff endorses his views; but he does not inform us in what these anatomical considerations consist, and I must confess my inability to do so myself, for I am not acquainted with a single fact connected either with anatomy, physiology, or pathology, which in judiciously selected cases would militate against it if properly performed.

In advocating this proceeding, however, I do not for one moment pretend that it will or ought to supersede Syme's or Pirogoff's methods altogether. They, I believe, will always maintain their ground. They can be performed when this cannot. But I am equally confident that the two former have frequently been selected in instances wherein the latter might have been performed with greater advantage to the patient; and I also feel certain that, when this operation of subastragaloid amputation becomes more generally known, surgeons will study their cases more closely, that they will pay greater attention to the selection of their operative proceedings, and that it will be more frequently adopted. Mr. Syme justly claims an increased length of limb and a stump formed of structures especially supplied by nature to sustain pressure and to enable man to walk thereon. Pirogoff and his supporters claim superiority for his proceeding over that of Syme in that his (Pirogoff's) operation is more easily performed, that by it a still greater length of limb is obtained, and that, whilst the same soft structures enter into the stump, a new osteo-plastic measure or principle is introduced in obtaining union between the cut surface of one bone with another, the other being a different bone from that with which nature originally designed it to articulate. For subastragaloid amputation I claim equal facility of execution with that of Pirogoff, and length of limb equal to that afforded by the latter; but whereas in the latter this increased length of limb is obtained by a piece of bone transplanted, so to speak, to new ground, to an abnormal situation, the former supplies it by a non-disturbance of parts, by the preservation, in fact, of the astragalus in its natural position. Another advantage consists in the dorsal incision being made over the medio-tarsal joint, or a little anterior to it, instead of being carried in front of the ankle-joint. By this the sheaths of the extensor tendons are left undisturbed, and consequently the risk of inflammation and suppuration within those sheaths and in the course of the tendons is materially diminished.

But the great superiority of this operation over those of both Syme and Pirogoff is that by it the ankle-joint is preserved intact, whilst a stump of natural heel-structure is equally obtained.

A surgical writer of considerable reputation, in treating of subastragaloid amputation, ignores Malgaigne's mode, and advises the heel flap to be made as in Syme's. He adds: "A good, long, and useful stump results; but the number of cases requiring it must be small, as it does not often happen that the calcis, with the anterior range of tarsal bones, are diseased without the astragalus also being involved."

Mr. Syme objects to the operation altogether; "that Dr. Traill, of Arbroath, lately sent a communication, with cast, to the Medical Society of Edinburgh. He says truly that cases in which the astragalus could be left must very rarely occur, since disease affecting the tarsus at all generally involves the astragalus; but I (Mr. Syme) think it would be very undesirable to leave this bone, even when it is not affected at the

time of the operation, on account of the predisposition to caries, one of the great recommendations of amputation at the ankle being that it removes all the bones liable to disease."

Nothing, it must be allowed, can be more sweeping, nothing more condemnatory of the poor tarsal bones, than are these opinions. The first asserts that it does not often happen that the calcis and anterior range of tarsal bones are diseased without the astragalus being involved also. The second lays down that when disease affects the tarsus at all it generally involves the astragalus. Whilst the third maintains, never mind whether the astragalus be sound or not at the time of operation; it is predisposed to disease, and therefore should always be removed.

These opinions are so extreme that I must be excused for doubting whether their authors, when they promulgated them, had duly considered what the practical result would be if they were implicitly followed. That they have influenced the profession, and that they continue to do so, all who read the recorded surgery of the foot must admit, and consequently if erroneous the sooner their influence is dissipated the better. They are either of great value or they are actually mischievous. They negative all efforts at improvements in the surgery of the foot; they condemn resections of bones; they condemn partial amputations; in a word, they condemn all operative procedures, save that of removal of the foot at the ankle-joint. They virtually ordain that if disease appears in a tarsal bone, never mind how limited that disease may be, you must amputate at the ankle-joint at once. It is no use your removing an isolated bone; it is no use your attempting to preserve any portion of the foot; the tarsal bones, whether diseased or not, are predisposed to disease, and therefore the sooner they are all sacrificed the better.

If these opinions are so strongly opposed to the preservation of bones not yet implicated, how decidedly fatal must they be to the proceeding of gouging away, or attempting to gouge away, the portions of bones in which disease has already manifested itself; for if the remaining bones not yet implicated are so predisposed to mischief that they ought of necessity to be removed, it is sheer folly to imagine that gouging away a diseased portion of bone can have the effect of converting the remainder into such a perfectly sound condition as to emancipate it from this predisposition. Yet we find the following case reported by the high authority to whom I have alluded:—

"The ankle-joint appeared sound; the articulations on the inner side of the foot were sound; there were several fistulous openings on the outer side of the foot, and the probe found the outer side of the os calcis diseased. Another opening led to the diseased astragalus, and another to the cuboid. The disease appeared to be limited to the upper and anterior part of the os calcis, the anterior and outer portion of the astragalus, and the posterior of the cuboid. *The parts were gouged away*, and in so doing the large anterior synovial membrane between the scaphoid and cuneiform was laid open. The day after severe erysipelas set in, followed by suppuration in the sole and inner part of the foot, and the patient became so weak that amputation of the leg was obliged to be had recourse to."

Now as I have not this dread of "predisposition," as I believe that caries of the tarsal bones frequently results from disease originating in the soft structures of the tarsal joints, and as frequently extends to the bones from mere contiguity of surface, and, moreover, that the removal, without violence, of the carious portion of a bone will frequently arrest the disease in that bone altogether, I should say that, circumstances contra-indicating Teale's operation, the case just related was one to which subastragaloid amputation was especially adapted, when performed according to the method which I shall presently describe.

I would submit, moreover, that the operation may also be performed with great advantage in such cases as the following related by Mr. Skey. In Nov. 1858 he removed a considerable amount of diseased tarsal bones from the right foot of a patient. The case went on well for a month, when the disease returned, and in May, 1859, Mr. Skey operated again. In his clinical observations, alluding to the proportion of failures in these attempts (one in every three), he says it might have been preferable to have amputated, but that he desired to give the man a chance. As the ankle-joint does not appear to have been implicated, I should in similar cases prefer subastragaloid amputation in the first instance to gouging; and in the event of the latter having been tried and failed, I would certainly select the former rather than repeat the gouging or have recourse to amputation of the leg.

In one case, instead of taking the flap from the sole of the foot, Malgaigne obtained it from the dorsum. The patient, a woman aged forty-two, had for three years suffered from disease extending from the scaphoid to the os calcis, but the ankle-joint remained sound. Gouging was had recourse to in the first instance, but the patient getting worse, Malgaigne operated by a dorsal flap. This sloughed away, but the wound ultimately cicatrized. The patient, however, subsequently complained that the weight of the body bore too much on the head of the astragalus, which in fact descended lower than the rest of the bone. By degrees she got over this, and when she left the hospital in April, 1846, she could walk comfortably.

Maisonneuve appears to have performed the third subastragaloid amputation in France. He first cut the skin across at the posterior part of the heel; then, bringing his knife forwards beneath the external malleolus, cut from behind forwards along the outer border of the foot to the roots of the toes, so as to make a flap involving the skin of the entire dorsum of the foot. The flap united, but the patient subsequently suffered greatly in walking, from the pressure on the head of the astragalus, which descended lower than the malleoli, the posterior part of the bone being apparently drawn up by the contraction of the tendo Achillis.

M. Malgaigne also relates the case of a soldier operated upon before Sebastopol, in whom the astragalus, drawn up behind by the tendo Achillis, became anchylosed to the tibia, and thus prevented the stump resting flatly on the ground.

In the year 1848, Mr. Simon introduced the operation into this country in the case of a boy aged fifteen, suffering from scrofulous caries affecting the front and outside of the tarsus, extending to the os calcis, but sparing the astragalus. Having ascertained that the astragalus and ankle-joint were healthy, Mr. Simon made his flaps as in Syme's amputation; and, introducing his knife between the astragalus and calcis by cutting from before backwards, detached the foot. The boy recovered with a good and useful stump; and, when seen several years afterwards, could walk well and without inconvenience.

Mr. Simon's second case was not so successful, although the fatal termination can scarcely be ascribed to the operation, performed on a railway labourer, aged twenty-five years, admitted into St. Thomas's Hospital in the summer of 1853. A carriage-wheel had passed obliquely over his foot from behind forwards and inwards, crushing everything in front of the line of the incision, and breaking and exposing the under part of the os calcis. The same amputation was performed as in the former case. The stump was nearly healed, and was apparently as satisfactory as could be wished, when, about a fortnight after the operation, the patient died of tetanus.

Both Malgaigne and Maisonneuve allowed the head of the astragalus to remain; and we are led to infer that Mr. Simon pursued the same practice. In the two former instances we have seen that great suffering and inconvenience follow this practice, resulting from the tendo Achillis forming fresh attachments, and drawing the posterior portion of the astragalus up into the mortise of the tibia and fibula, by which the head of the bone, rendered unduly prominent, was forced downwards; so that the patients in walking rested on this process instead of upon the broad under surface of the bone, as they should have done. This inconvenience may be entirely prevented by removing the head of the astragalus at the time of operation, which can be done with perfect safety, and certainly a much better stump results from such proceeding.

On the 24th September, 1863, the girl a portion of whose foot I had amputated by sawing through the cuneiform and cuboid bones, and whose case I alluded to in my second lecture, was readmitted with inflammation and pain in her other (the right) foot. The right ankle-joint appeared to be much swollen and inflamed, especially over its anterior and outer aspect. Entire rest upon a splint was ordered. The joint, however, still remained swollen, thickened, and painful, and at length the skin on the outer side ulcerated. Under tonics and nourishing diet, with perfect rest, the patient appeared to improve; but at the expiration of six months she became rapidly worse: several wounds opened in the neighbourhood of the joint, instep, and beneath the sole of the foot, with sinuses leading to the bones in various directions. As her general health was now giving way, I, in March, 1864, recommended the girl to have the foot removed at the ankle-joint; and she having consented, I proceeded to perform that operation. But a more careful examination under chloroform led me to doubt the necessity of sacrificing the ankle-joint. I consequently made an exploratory incision on the outside of the foot, and with my finger found that the astragalus was sound, whilst the freedom with which the foot could now be flexed and extended showed also that the ankle-joint was free from implication. Under these circumstances, with the con-

currence of my colleagues, I determined upon performing the subastragaloid amputation by flaps as in Syme's operation, differing only in making the posterior flap fuller than that advised in the latter proceeding. In consequence of the amount of disease in the os calcis the soft parts had become detached, so that very little difficulty was experienced in separating the posterior flap from the bone, or in subsequently introducing the knife between the astragalus and calcis and cutting the interosseous ligament. Having thus detached the whole of the foot with the exception of the astragalus, I next removed the head of the astragalus, sawing through the neck of the bone, and, bringing the flaps together, united them by two or three sutures, taking care to leave their angles unclosed so as to admit of free discharge. The stump healed gradually and without a single untoward symptom. The patient's health slowly but surely improved, and at the end of three months she was discharged, being able to bear her weight upon her stump and hobble about upon crutches. After a few months Mr. Ernst, the surgical mechanician, fitted her with artificial feet; and she is here in the College to-day for the purpose of being examined, if you, Sir, and the rest of my hearers, would desire to do so. You will find that both the stumps are entirely healed, and sound. It is now more than two years since the last operation, and nearly three since the first. Notwithstanding the amount of disease in the tarso-metatarsal joints, and the proximity to those joints at which I sawed through the tarsal bones, as you have already seen in the preparation before you, the stump has remained sound to the present day, and in the condition in which you will now find it. The stump resulting from the subastragaloid amputation appears to me to be perfect. It is round and of good form; the cicatrix is firm and well up in front; and the bottom of the stump is properly covered by the natural heel-tissue. She has a certain amount of motion of the ankle-joint, and can now walk with the assistance of a single crutch. Not, as she will tell you, that she requires the crutch from inability to bear her weight upon the stumps, but because, as she says, the loss of the front of her feet causes such a strain upon the lumbar muscles when she walks without the crutch that she is prevented doing so by the pain referred to that situation.

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ON THE

# MORBID ANATOMY OF THE NERVOUS CENTRES IN GENERAL PARALYSIS OF THE INSANE.

By J. LOCKHART CLARKE, F.R.S., &c.

THE principal morbid appearance that has been described by pathologists as constant in general paralysis, is to be found in the bloodvessels of the brain. It was first pointed out by Wedl and Rokitansky, and has since been more fully described by Drs. Salomon and Sankey. These observers have shown that many of the capillaries and smaller arteries become wavy, more or less tortuous, or convoluted into knots. "There appears," says Dr. Sankey, "to be some amount of tortuosity in the capillaries of every case of general paresis. This tortuosity in places amounts to a simple sharp curve or twist; in places to a kinking of the vessel; in others, to a more complete twisting, until it forms, in fact, little knots of varicose vessels of very complicated kind."* These appearances are well seen in preparations which Dr. Sankey was kind enough to show me, as well as in my own, and I have found them, to a certain extent, in the brain of every case of general paresis that I have examined; but they are much more striking in some cases than in others, and I agree with Dr. Sankey so far, that the amount of alteration is not always in proportion to the length of date, degree of imbecility, or of impaired motility. In an old woman who had been for a great many years an inmate of Hanwell Asylum, and whom I saw only two or three weeks before her death, I found the vessels of the cerebral hemispheres less altered in shape than in most other cases of much shorter duration.

But the capillaries and small arteries which are thus thrown out of their usual course are also surrounded by a fibrous and cellular covering, or kind of sheath, which invests them somewhat loosely, and frequently contains grouped or isolated nuclei, fatty particles, and granules or grains of hæmatoidin, of a brown or yellowish tint. This secondary sheath is described by Rokitansky, Wedl, Sankey, and others, as an abnormal deposit of hypertrophied connective tissue, "fitting, as it were, more or less closely to the vessel, in greater or less degree of transparency and extent, in some cases approaching a browniah hue, and marked by transverse lines like commencing contractions.....Whether this excess (of connective tissue fibres) is from what Rokitansky calls overgrowth of the original connective medium, or is thrown out by the capillaries, or is formed conjointly by both, is, and must probably remain, hypothetical."†

Rokitansky and Wedl believe that this investing substance is formed from a material thrown out by the capillaries, and that in the first stage the material is hyaline; that it afterwards contracts; that in contracting it throws the capillaries into bends or kinks; that as it goes on contracting it becomes less hyaline, more fibrous, and at length like a sheath.‡ They do not, however, consider it as peculiar to general paralysis, having observed it in other forms of cerebral disease; but still they describe it as an abnormal product, and as assuming the appearance of a sheath in morbid cases only.

Now it is very important to be aware that in every healthy brain, or at least in every brain that on examination is usually considered healthy, a great number of the capillaries and small arteries are surrounded by secondary sheaths, precisely similar in all *essential* particulars to those which have been considered as morbid products in general paralysis and other cerebral affections. This anatomical fact was, I believe, first pointed out, about eleven years ago, by M. Robin of Paris, and was afterwards made the subject of a paper, with engravings, in the second volume of the "Journal de Physiologie," from which I extract the following passage:—

"On trouve normalement autour d'un certain nombre des capillaires du cerveau, de la moëlle, de l'épendyme, et de la pie-mère, une enveloppe épaisse de 1 à 2 millièmes de millimètre, composée d'une substance homogène ou à peine striée. Elle s'étend sous forme d'une tunique adventice, ou extérieure à bords nets, mais onduleux depuis les capillaires, qui ont 1 à 2 centièmes de millimètre, en dehors même de la tunique de tissu lamineux de ces derniers. Elle est distante de 1 à 3 centièmes de millimètre des parois propres du capillaire qu'elle enveloppe. Or, cet espace est tantôt rempli d'un liquide incolore mêlé de granulations moléculaires, tantôt de petits noyaux libres, sphériques, larges de 5 millièmes de millimètre. Ces noyaux sont tantôt rares, écartés, de manière à laisser voir les parois propres du capillaire, tantôt ils sont contigus, ou au moins assez rapprochés pour masquer les noyaux ovoïdes allongés de ces parois. Dans tous les cas,.....on trouve toujours, chez les sujets qui ont dépassé quarante à quarante-cinq ans, des amas de granulations graisseuses, ou des granulations graisseuses isolées, atteignant jusqu'à 2 centièmes de millimètre, qui sont dans cet espace entre les parois propres du capillaire et cette tunique transparente extérieure. Mais surtout on y trouve aussi, entre les petits noyaux ronds ci-dessus, une grande quantité de granulations et de grains très-gros d'hématosine amorphe. Ces grains d'hématosine peuvent atteindre jusqu'à 2 centièmes de millimètre, et sont isolés ou réunis plusieurs les uns à côté des autres. Ils ne sont jamais accompagnés de globules sanguins, et semblent provenir d'hématosine qui aurait exsudé des parois propres des capillaires, et se serait déposée entre ces parois et la tunique transparente à bords souvent onduleux, décrite ci-dessus."‡ The author goes on to say that he has not found this special sheath around the capillaries anywhere else than in the white and grey substances of the cerebro-spinal nervous centres; that it does not belong to all the vessels, and that he is unable to say precisely to what its presence or absence is due; but that he has found it in every cerebrum and cerebellum in which he has looked for it.§

My own observations confirm the general correctness of this description and of the remaining statements of the author. I have found such sheaths around a variable number of bloodvessels in the brains of persons who have died without any apparent cerebral disorder, and one of these brains belonged to a fine, powerful, and healthy-looking young man, who was killed by an accident in the street.‖

Yet, on comparing vertical sections of the convolutions of a healthy brain with those of a brain from a person who has died

* Journal of Mental Science, No. 48, 1864, and Lectures on Mental Diseases.

* Sankey: Loc. cit. † Ibid.
‡ Page 543. § Page 544.

‖ It was this brain chiefly that I employed in my Researches on the Minute Anatomy of the Cerebral Convolutions.—("Proceedings of the Royal Society," vol. xii., No. 57.)

of general paralysis, a striking difference between them is often observable even to the naked eye. In the latter case, a series of streaks or lines may frequently be seen radiating through the white and grey substances towards the surface; and in vertical sections of convolutions that have been hardened in chromic acid, it is very common to perceive, in the white substance especially, what seems at first sight to be a number of vertical fissures and oval slits, which, under the microscope, however, are found to contain bloodvessels surrounded by sheaths like those already described. But the sheaths in these cases are often less delicate; they are thicker, more conspicuous, and frequently darker than in the healthy brain; and sometimes, especially when the vessels are convoluted, they appear as fusiform dilatations along their course. Moreover, while in the healthy brain the granules or grains of hæmatoisin are commonly scanty, and frequently absent altogether, in general paralysis they mostly abound, being scattered in some places, and collected into groups in others. So much for the state of the cerebral bloodvessels in general paresis. In the nerve-cells of the convolutions I have frequently discovered certain structural changes, which, as far as I am aware, have not been mentioned by other observers. These changes consist of an increase in the number of the contained pigment-granules, which in some instances completely fill the cell. In other instances the cell loses its sharp contour, and looks like an irregular heap of particles ready to fall asunder.*

A French writer, M. Joire, has stated that, during an experience of three years, he has always found in cases of general paralysis a peculiar alteration of structure in the fourth ventricle of the brain. This alteration consists of the formation of a considerable number of granulations resembling the elevations produced on the skin under the influence of cold. At an early stage of the disease the granulations are numerous and small, and suggest the idea of a surface covered with grains of sand. In older cases the granules are larger, and afford a rough sensation to the touch. They are most remarkable at the point of the calamus scriptorius.†

The appearance described by M. Joire is quite familiar to me, but I have not always found it in general paralysis; and it is certainly not peculiar to this disease, for I found it in cases of an entirely different nature. In Beale's "Archives of Medicine" (No. ix., 1861), I recorded a remarkable case of muscular atrophy, in which, together with lesions of the cord, this granular appearance on the floor of the fourth ventricle was very strikingly manifested. I then showed that it was due to hypertrophy of the ordinary epithelium by which the ventricle is lined. It may be well to reproduce my description. "The whole floor of the fourth ventricle presented a very peculiar and unnatural aspect. Instead of being smooth and shiny, as in the healthy state, it was entirely paved with a multitude of granulations or small rounded eminences, which were very closely aggregated, but differed from each other considerably in size. I removed some of them for examination, first by scraping them off from the surface, to which they adhered with considerable tenacity; and then by shaving off a section, together with a thin layer of the subjacent tissue. When examined by a sufficiently high magnifying power, the granulations or eminences were seen to consist of globular aggregations of the ordinary epithelial cells, which, in a natural or healthy state, are arranged side by side, and form a smooth or level surface on the floor of the ventricle. The tissue immediately subjacent, and which consists of exceedingly fine fibres proceeding from the tapering ends of the epithelial cells, and running in various directions, was more abundant than usual; and—as might be expected from the homologous relation of this part to that which surrounds the spinal canal—it was interspersed with *corpora amylacea*, but certainly not to a corresponding extent."‡

In protracted cases of general paralysis the spinal cord is mostly, if not always, more or less affected. In some instances I have found it softened in certain parts to the consistence of cream. In other instances, in which there was little or no external appearance of softening, I have found numerous areas of granular and fluid disintegration within and around the grey substance.

Belgravia, Aug. 1866.

* These are not to be confounded with the "granule" or "exudation" cells of authors. The filling of the nerve-cells with pigment-granules, as an early stage of degeneration, I formerly pointed out in diseases of the spinal cord and of other parts.—(Beale's "Archives of Medicine," No. xiii.) Dr. Hughes Bennett had also described fatty degeneration and consequent disintegration of nerve-cells in the nervous centres. This distinguished pathologist has represented the change in Fig. 405 of his great work on "The Principles and Practice of Medicine," fourth edition.

† Gazette Médicale de Paris, Aug. 1864.

‡ Beale's "Archives of Medicine," No. ix., Oct. 1861, p. 18.

ON THE

# AMOUNT OF FRESH AIR REQUIRED TO REDUCE TO THE NORMAL STANDARD THE CARBONIC ACID IN AIR VITIATED BY RESPIRATION.

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THE principles brought forward in the section on Ventilation in Dr. Edward Smith's report on the Workhouse Infirmaries are so much at variance with the hitherto received ideas on the subject that I have thought it would be useful to analyze some detailed observations made during the last few years.

Dr. Smith asserts that the recommendations of the Barrack and Sanitary Commissions are founded on theory only, and that there are no experiments with which to compare those made by himself in conjunction with Dr. Angus Smith. He further states that a space of 500 cubic feet per man is sufficient, provided there be an adequate renewal of air. It is evident that Dr. E. Smith cannot have read the papers published on the subject (by myself and others) in the Army Medical Reports during the last four or five years. In these will be found experiments even more extended and in more detail than his own. I propose to analyze a few of them, and, to facilitate this, I have constructed the following table, which shows the amount of air required to be delivered to reduce to a given standard the carbonic acid in an atmosphere vitiated by respiration.

*Table showing the diminution of the ratio of $CO_2$ in vitiated air by delivery of definite quantities of fresh air; the original air-space being 1000 cubic feet, occupied by one adult.*

| Cubic feet of fresh air delivered in one hour. | Carbonic Acid brought in by fresh air. | Total Carbonic Acid, including 4 in original 1000 cubic feet, given off by occupant, and that introduced by the fresh air. | Ratio of Carbonic Acid at the end of the hour. | Diminution of Carbonic Acid ratio. | Remarks. |
|---|---|---|---|---|---|
| | Cubic ft. | Cubic feet. | Per cent. | Per cent | |
| *nil* | *nil* | 1· | ·1000 | *nil* | |
| 1,000 | ·4 | 1·4 | ·0700 | 30· | |
| 2,000 | ·8 | 1·8 | ·0600 | 40· | |
| 3,000 | 1·2 | 2·2 | ·0550 | 45· | |
| 4,000 | 1·6 | 2·6 | ·0520 | 48· | |
| 5,000 | 2· | 3· | ·0500 | 50· | |
| 6,000 | 2·4 | 3·4 | ·0486 | 51·4 | |
| 7,000 | 2·8 | 3·8 | ·0475 | 52·5 | |
| 8,000 | 3·2 | 4·2 | ·0467 | 53·3 | |
| 9,000 | 3·6 | 4·6 | ·0460 | 54· | |
| 10,000 | 4· | 5· | ·0455 | 54·5 | |
| 11,000 | 4·4 | 5·4 | ·0450 | 55· | |
| 12,000 | 4·8 | 5·8 | ·0446 | 55·4 | |
| 13,000 | 5·2 | 6·2 | ·0443 | 55·7 | |
| 14,000 | 5·6 | 6·6 | ·0440 | 56· | |
| 15,000 | 6· | 7· | ·0438 | 56·2 | |
| 16,000 | 6·4 | 7·4 | ·0435 | 56·5 | |
| 17,000 | 6·8 | 7·8 | ·0434 | 56·6 | |
| 18,000 | 7·2 | 8·2 | ·0432 | 56·8 | |
| 19,000 | 7·6 | 8·6 | ·0430 | 57· | |
| 20,000 | 8· | 9· | ·0429 | 57·1 | |
| 25,000 | 10· | 11· | ·0423 | 57·7 | |
| 30,000 | 12· | 13· | ·0419 | 58·1 | |
| 40,000 | 16· | 17· | ·0414 | 58·6 | |
| 45,000 | 18· | 19· | ·0413 | 58·7 | |
| 50,000 | 20· | 21· | ·0412 | 58·8 | |
| 100,000 | 40· | 41· | ·0406 | 59·4 | |
| 1,000,000 | 400· | 401· | ·0401 | 59·9 | |

*Example.*—A space of 1000 c. ft. of air contains ·4 c. ft. of $CO_2$. One adult gives off in an hour ·6 c. ft. of $CO_2$; ·4 + ·6 = 1 c. ft., or ·1 per cent. If 1000 c. ft. of fresh air be brought in, the amount of $CO_2$ will then be 1·4, distributed through 2000 c. ft. of air, or ·07 per cent. In the same way the introduction of 5000 c. ft. of fresh air will reduce the $CO_2$ to ·05 per cent., 10,000 to ·0455 per cent., and so on.

The cubic space taken is 1000 cubic feet, supposed to be

occupied by one person. At the end of an hour the amount of $CO_2$ present in this 1000 cubic feet of air will be one cubic foot—viz., ·4 cubic feet, the normal amount present in all air, and ·6 cubic feet, the amount expired by the occupant in one hour. That is: whereas the normal amount is ·04 per cent. of $CO_2$, the air (if no renewal take place) will, at the end of an hour contain ·10 per cent. Our aim is to supply so much air as will reduce this excess of $CO_2$ as nearly as possible to the normal standard—viz., ·04 per cent. Were the air to be supplied entirely free from $CO_2$, then the problem would be simple enough; we should only have to divide ·10 by ·04 = 2·5, and make up the air to 2½ times the original amount, or add the difference between the original air (1000 cubic feet) and the quantity so calculated. This would be 2500 — 1000 = 1500 cubic feet to be added. For if 2500 cubic feet contained 1 of $CO_2$, the ratio would obviously be ·04 per cent. But as the incoming air already contains ·04 per cent., the problem becomes more complex. If in practice we add to 1000 cubic feet, containing one cubic foot of $CO_2$, 1500 cubic feet of fresh air, we bring in also ·6 of $CO_2$. The result will be, that the 2500 cubic feet will contain 1·6 of $CO_2$, or in the ratio of ·064 per cent. instead of ·04 per cent. A much larger quantity of air must therefore be supplied, and the table will show the reduction consequent on the delivery of different quantities of fresh air. Thus, starting with 1000 cubic feet per head, containing at the end of an hour ·10 per cent. of $CO_2$, if we supply 1000 cubic feet of fresh air (bringing with it ·04 per cent. of $CO_2$) we reduce the $CO_2$ to ·07 in the whole air. If we supply 5000 cubic feet of fresh air we reduce it to ·05 per cent.; if we give 10,000 we reduce it to ·0455 per cent., while it would take no less than 1,000,000 of cubic feet of fresh air to reduce it to ·0401 per cent. It is thus obvious that *so long as the space is occupied continuously*, no amount of air that can be supplied will reduce the $CO_2$ to the normal standard, and that unless an *increasing* quantity of air be delivered, the atmosphere must become more and more vitiated. This deduction would, however, be modified by the variable composition of the external air under certain circumstances (from ·02 to ·05 per cent.), but it is safe to take the average at ·04 per cent.

In a badly-ventilated room at Aldershott (March, 1865) the following were the conditions:—Total cubic space, 13,032 feet; number of men, 15; cubic space per head, 871; total inlet and outlet area per head, nearly 20 square inches; delivery of air that could be measured, 7210 cubic feet per hour, or 480 per man. At this rate the $CO_2$ at five A.M. (the men having been in the room eight hours) would have amounted to ·1418 per cent., but actual observation gave ·0962 per cent.; therefore about double the quantity of air, or about 950 cubic feet per head per hour, must have been actually delivered. In this case probably all the air delivered was utilized, but this often does not happen. In the same room in the daytime six people had been one hour; there was a good fire and strong draught; the door was open, and air was rushing into the room at the rate of 105,000 cubic feet an hour. If all this air had been utilized, the $CO_2$ would have been reduced to ·043 per cent., or nearly to purity; but actual observation gave ·0664 per cent., or more than half as much again, showing that from the form of the room and bad distribution of the current, a great part of the air had escaped without mixing with the atmosphere of the room. In another room, ventilated on a better principle, and where nearly all the movement of air could be measured, the conditions were:—Total cubic space, 12,984 feet; number of men, 13; space per head, 999 cubic feet; total inlet and outlet area per head, 23 square inches: total delivery of fresh air per hour, 25,519 cubic feet, giving per head, 1963. By calculation at the end of two hours, the ratio of $CO_2$ would be ·0643 per cent.; by actual observation it was ·0642, or almost identically the same. In this case all the air was utilized.

In a ward at Hilsea Hospital the cubic space was 28,360, the number of patients 17; giving a space per head of 1669 cubic feet; inlet and outlet area per head, 45·6 square inches. At midnight (the patients had been in for four hours) the $CO_2$ was in the ratio of ·0432 per cent. To effect this reduction no less than 21,000 cubic feet of air per head must have entered.

In the observations cited by Dr. E. Smith the $CO_2$ amounted to ·056 per cent. during the day, and rose to ·0779 at midnight, and to ·0781 in the morning. If each inmate had only 500 cubic feet of air-space, then, after four hours' occupation, it would require 3750 cubic feet of fresh air per head to be delivered per hour. To reduce the $CO_2$ to ·0779 at midnight, it would require 1800 cubic feet per head per hour; and to reduce it to ·0781 at six A.M. it would require 2500 cubic feet per head per hour. This would give, on the whole, an average of about 3200 cubic feet per head per hour in the twenty-four hours. But the result, after all, is anything but satisfactory, the ratio of $CO_2$ at night being nearly double the standard. Besides this, to get even this delivery, and to keep down the velocity of the current of air to 6 feet per second, we should require at least 46 square inches of inlet and outlet area per head, *free of all obstructions*, and *triple* that amount if there be *louvres* or *gratings*. But to reduce the $CO_2$ to the ratio obtained at Hilsea we should require, if only 500 cubic feet of air space be given, to deliver 18,250 cubic feet per head per hour. Now, in the Hilsea ward, the rate of movement of the incoming air at the apertures must have been, by calculation, 36 feet per second; but there was only a difference of 5° F. between the external and internal air; while the great size of the ward (28,360 cubic feet, or 1669 per head) enabled the air to be so distributed as to produce comparatively little draught. But if this ward had held 54 patients—as it would do on Dr. E. Smith's plan,—we should require to bring in 985,500 cubic feet per hour; and to reduce the rate of movement to 36 feet per second, as above, the total inlet and outlet area would have to be raised from 775 square inches to 2217—an enormous amount. But it is obvious that such a rate as 36 feet per second at the point of entry could only be tolerated under certain circumstances, and that consequently the ventilation would be defective at all other times. Moreover, to secure such a rate of renewal of air would require artificial means to an extent that would necessitate much greater expense than would be required to supply at the outset a greater amount of air space. That the amount of delivery of air recommended in the present day (about 2000 cubic feet per head per hour) is still much too small may be seen from the table; but we shall not only not improve the position, but, on the contrary, make it worse, if we diminish the amount of original air space.

Army Medical School, Netley, July 31st, 1866.

## A SIMPLE METHOD OF RADICALLY CURING REDUCIBLE HERNIA.

BY JULIAN J. CHISOLM, M.D.,
PROFESSOR OF SURGERY IN THE MEDICAL COLLEGE OF S. CAROLINA, U.S.A.

A SIMPLE plan for radically curing hernia, which I suggested and put into successful practice in 1859, consists in sewing the columns of the inguinal ring together, subcutaneously, by silver wire, and leaving the wire permanently in the tissues, so as to act the part of a permanent internal clamp. This restores to a great extent the virgin condition of the external oblique tendon which gives strength and support to the lower portion of the abdomen. The only instrument necessary for the performance of this operation is a stiff needle five inches in length, very slightly curved towards its point, near which is placed the eye. The other extremity of the needle is secured in a firm handle, which enables the surgeon to control its movements.

The various steps of the operation are as follow:—The patient having undergone the usual preparation of having the bowels emptied by some mild cathartic, is placed in the recumbent posture, and all hair is removed from the pubic region corresponding to the side upon which the operation is to be performed. The hernial contents having been returned into the peritoneal cavity, the index-finger of the left hand is placed over the centre of the fundus of the scrotum (palmar surface upwards), the needle lying upon and parallel with it, the eye of the needle corresponding with the pulp of the finger, which can guide it in the direction it should take to the point of transfixion. The finger, with the needle now capped by scrotal tissue, is passed up into the inguinal canal until the inner face of the columns can be readily felt. The pulp of the finger having passed well behind the internal column, the handle of the needle is seized, and the point, directed by the finger, is made to transfix the conjoined tendon and internal column at some distance from its free border. When the point of the needle projects under the skin of the abdomen, an assistant draws the skin inward towards the median line, so as to make the needle perforate that portion of skin which would normally lie over the central portion of the canal. The needle is now threaded with a silver wire and then drawn back into the canal and through the scrotum,

leaving one end of the wire exposed upon the abdomen. If the point of the needle has escaped from the scrotal puncture, it is carefully reinserted through the same orifice, and, directed as before upon the pulp of the finger, passes with the invaginated scrotum into the canal, and is made to transfix the external pillar of the ring. As the point lifts the skin the abdominal covering is drawn outwards in such a way that the point of the needle protrudes through the puncture first made in the skin of the abdomen. The silver wire is now detached from the eye, and the needle completely withdrawn through the scrotum, leaving the two ends of the silver wire protruding from the abdominal puncture. The portion of wire embedded in the tissues forms a long loop, which extends continuously through each column of the ring to the bottom of the scrotum; the extreme convexity of the loop lying in the scrotal fascia under the skin, where it can be felt by passing a probe into the scrotal puncture.

The next step of the operation consists in drawing firmly upon the ends of the wire, whilst the scrotum is drawn downwards and its invagination prevented, which forces the wire to tear or dissect up the scrotal fascia to the immediate vicinity of the ring. If the finger be now thrust up into the canal and the wire drawn upon, the finger will be squeezed by the approaching columns; and if drawn out of the canal, and the wire be still drawn upon, the ring will be so diminished in size as only to accommodate the spermatic cord, with no room to readmit the finger. The wire is now twisted from above with a torsion forceps, and when the columns are brought well in apposition, without too much traction being made to cause the wire to act as an écraseur, the ends of the wire are cut off as close as possible to the abdomen, when the portion left in the wound immediately disappears from view, under the skin.

From the beginning to the end of the operation not a drop of blood is drawn, the only external evidence of an operation having been performed being a small prick in the skin of the abdomen and a similar one in the scrotum, either of which can scarcely be found, and which heal in a few hours. For a few days after the operation the patient is kept quiet, until the wire can become imbedded in lymphy effusion. No truss need afterwards be worn, as the wire clasping the columns of the ring restores the support of the abdominal wall; the truss, moreover, would act injuriously by painfully compressing the skin against the incarcerated wire suture. One suture suffices for the majority of herniæ. Should the orifice of protrusion be of large size, as in large inguinal or umbilical herniæ, two or more sutures may be required to keep the borders of the opening in perfect apposition. A point of much importance is that of introducing the needle the second time exactly through the same orifice in the scrotal skin as it had traversed in its first introduction; for should a portion of the skin be involved in the loop of the wire, the ready dissection of the scrotal fascia cannot be effected without much force, and the scrotum becomes invaginated in the inguinal canal. The same rule holds good for the abdominal puncture, otherwise the twisted wire will not slip under the skin and become embedded in the subcutaneous fascia.

Norfolk-street, Strand, London, June, 1866.

# A Mirror

## OF THE PRACTICE OF

# MEDICINE AND SURGERY

## IN THE

# HOSPITALS OF LONDON.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

## CHOLERA IN THE METROPOLITAN HOSPITALS.

### LONDON HOSPITAL.

THE decline in the number of cases admitted into this hospital is well marked this week, as will be seen by reference to the subjoined table. There are still cases of severity admitted occasionally. On Tuesday we saw two such, which presented some interesting points. One was a sailor who came in on Aug. 24th, from Malden, with violent abdominal pain, the force of which made him writhe and roll about so much that it was more than half supposed he was exaggerating, if not malingering. He had then no diarrhœa or other marked choleraic symptoms except vomiting. He was placed in one of the cholera wards. His first motion was healthy, both in colour and consistence; the next was greenish and less solid. Gradually the evacuations became more and more loose. When we saw him on Aug. 28th he was collapsed. He had been constantly purged during that day and the preceding night, his motions consisting of clear amber-coloured fluid. He vomited occasionally, and was very thirsty. Astringent medicines had not in the least checked the progress of the purging. He told us that he always felt better after he had vomited, and the nurse said that he frequently endeavoured to excite vomiting by putting his finger down his throat. His case is complicated by this difficulty: his friends say that he has been subject to occasional attacks of colic, and that he had one three months ago. That he is now affected with cholera there can be no reasonable doubt, but it is impossible to say whether his earlier symptoms were referable to that disease.

We saw another case of interest from an etiological point of view. A fisherman, fifty-two years old, left Billingsgate on August 22nd in his smack, and ran down the river to Queenborough, Kent, to fetch oysters. He returned on the 25th with a cargo, and when about ten miles below Gravesend, he was attacked with purging and vomiting, &c. He was admitted into hospital on the 26th. When we saw him on the 28th he was much collapsed, and very dusky in appearance, but his pulse was fair. His voice, however, was very weak. In answer to our inquiries, he told us that he never, by any chance, drank water which had not been boiled. His drink was tea and coffee, and a little beer. He was described to us as a highly respectable, sober man.

We remarked at our visit several patients who had had the roseolous eruption, and who were then in a state of complete desquamation, presenting, indeed, the appearance of convalescents from scarlatina. Our attention was directed by Mr. F. M. Mackenzie to some patients who were suffering from ptyalism, and who had not taken any mercurial. In two we found vesicles, of the size of peas, just inside the lips.

*Return of cases admitted into the cholera wards of the London Hospital for the week ending August 30th.*

| | Cholera. | Diarrhœa. | Total. |
|---|---|---|---|
| Admissions ... ... | 31 ... | 36 ... | 67 |
| Recoveries ... ... | 36 ... | 22 ... | 58 |
| Deaths ... ... ... | 11 ... | 2 ... | 13 |
| Under treatment ... | 52 ... | 40 ... | 92 |

*Since the commencement of the outbreak.*

| | | | |
|---|---|---|---|
| Admissions ... ... | 495 ... | 184 ... | 679 |
| Recoveries ... ... | 177 ... | 129 ... | 306 |
| Deaths ... ... ... | 266 ... | 15 ... | 281 |

### ST. GEORGE'S-IN-THE-EAST CHOLERA HOSPITAL.

IN the hospital attached to the workhouse and in the district under his care, Dr. Belcher has attended over three hundred cases of cholera. Of these, he says that four distinct varieties presented themselves, which, according to his observation, cannot be better defined than they are in Copland's Dictionary, under the terms (1) cholera biliosa, (2) cholera flatulenta, (3) cholera spasmodica, and (4) cholera morbus.

1. The persons attacked with cholera biliosa were generally of the middle age, and robust. The greater number had led irregular lives, were of intemperate habits, or intoxicated when attacked. The disorder usually commenced by cramp in the stomach, incessant vomiting of greenish fluid, and purging, the evacuations being dark-coloured and offensive. The most severe cases generally recovered in three or four days, and were relieved by from half an ounce to an ounce of castor oil, five grains of calomel to half a drachm, antispasmodics, &c., according to the case.

2. Cholera flatulenta occurred chiefly among the aged, debilitated, and ill-fed. This variety, even in severe forms, was in the majority of cases speedily relieved by antispasmodics, as chloric ether, spirits of cajeput, tincture of capsicum, carbonate of ammonia, &c., as the case might require. Nearly every person with whom Dr. Belcher came in contact complained of this flatulent variety in some form during some time of the epidemic.

3. Cholera spasmodica occurred chiefly among young adults and the middle-aged—comparatively rarely among the aged. The vomiting in these cases was extraordinary for its violence. The sudden gush of fluid made the utensil ring again, and seemed more like the work of a force-pump than a human stomach; and the evacuations were passed in a similar manner. In severe cases of this form nothing could be relied on to arrest the sickness. The vaunted nostrums and specifics were tried, but found utterly useless; though some cases *seemed* to be benefited by swallowing ice, some by turpentine stupes, and some by mustard poultices. Ice applied to the epigastrium occasionally did great service, though ofttimes it only allayed sickness for a time, when it returned, and continued as violent as before, despite all remedies. The greater number of severe cases resisted all kinds of treatment, whether applied externally or internally. Tincture of capsicum, oil of turpentine, tartar emetic, in doses of from a quarter of a grain to one grain, alone or combined with sulphate of magnesia, calomel, from five grains to half a drachm, castor oil, Condy's fluid, laudanum, acetate and carbonate of lead, tincture of aconite, and prussic acid, were severally tried; the latter drug was given in five-minim doses every five minutes, carefully watched. Some cases, after vomiting incessantly for days, and in many instances where no pulse could be felt at the wrist, have recovered, the disease having, as it were, worn itself out. In the milder forms of this variety, turpentine stupes, calomel, and antispasmodics, appeared to do good.

4. Cholera morbus, Asiatic or pestilential cholera, represented the type of a large number of cases. This variety occurred chiefly among the aged, though it spared neither age nor sex. At least two-thirds of all the cases of cholera under Dr. Belcher's care were females and Irish. When this variety occurred among others than the aged, it was the half-starved, dirty, ill-fed, squalid children of poverty who were as a rule the victims. They lived in dens of filth and wretchedness, the stench of which was stifling. The majority, indeed nearly all, of those attacked by this variety died. The mortality was greatest in that part of the parish polluted by bone-houses and soap-boiling premises, and by a dust-yard, the effluvium from which is proverbial, for there all kinds of vegetable matter and filth from various parts of London are deposited to rot and to contaminate the atmosphere. Dr. Belcher is of opinion that the true Asiatic cholera does not admit of cure. In his experience, every kind of treatment that has been advocated and vaunted has proved to be a failure. No reliance, he says, can be placed on any specific mode of treatment in this variety, more especially in the severe form. The main thing is good nursing, and this his patients had. The sisters of St. John's Mission gave their services, and were untiring in their attention to the poor both night and day. Hot-water pillows were a curse rather than a blessing to the patients, who would rather submit to the agony of the disease than to the impression produced by them; the children struggled, and kicked them out of bed. Hot-air baths gave similar results. Hot-water baths produced a feeling of exhaustion and a tendency to syncope, and gave little if any relief. As an application to the spine, hot water was useless, and so was cold. The only measures absolutely beneficial were good nursing, plenty of blankets, fresh air, and hot-water bottles to the feet and around the body. The castor-oil treatment was tried. Dr. Belcher has no confidence in it; nor would he recommend it, except as a dose at the commencement of the attack, and also when reaction has taken place, so as to clear out any offending matter that may be left in the bowels, and, perhaps, also in cases where there is vomiting without purging. In opium he has no faith; he believes it to be prejudicial, for in this variety nine cases out of ten became comatose, and suffered from head symptoms. Narcotising the patient simply hastened death. Nothing appeared to do good in this variety during the height of the attack. When reaction or recovery from collapse occurred, medicines were undoubtedly beneficial in hastening and promoting recovery, but they were useless in the treatment of the collapse itself. Many cases were collapsed from one to four hours after the first symptoms, but these were generally aged people.

A kind of roseolous eruption was observed in some cases, which principally occurred in the flexures of the joints, and more particularly among young adults and children. These cases invariably recovered. Cases in which reaction was accompanied by petechiæ and purpura hæmorrhagica have invariably died. In some few instances patients who were attacked with an apparently slight form of cholera spasmodica, and became well enough to be passed into the convalescent ward, complained afterwards of feeling sleepy, and were yet unable to sleep. At their urgent request sedatives were given, but these produced no sleep, and several of the patients died. This phenomenon occurred in aged persons, who were to all appearance doing well. One or two patients also who were doing well, but who had not left their beds, died suddenly from syncope. The worst cases of cholera occurred amongst the aged, who were attacked very suddenly, the disorder being rarely preceded by diarrhœa. The cases of this severe form, which were preceded by diarrhœa, were chiefly in children under seventeen years of age. The adults usually complained of pain and a stupid feeling in the head, with noises in the ears, and then were prostrated by pains in the stomach and cramps of the voluntary muscles, together with vomiting and purging, succeeded by icy cold tongue, breath, and skin, in less than an hour; with no pulse at the wrist, eyes sunk, the voice getting weaker and weaker, and death soon closing the scene. The first three forms of cholera Dr. Belcher thinks may be looked upon as amenable to treatment, and not infectious; but the Asiatic variety, he believes, is undoubtedly infectious, and not amenable to treatment, though some few may recover.

## GERMAN HOSPITAL, DALSTON.

THE number of cases admitted since the last report amounts to ten, making in all thirty-three since the commencement of the epidemic. In addition to the case already reported another proved fatal, the death being caused by uræmia after ten days' suppression of urine. The blood collected from the heart and large vessels contained two per cent. of urea; the appearance of the kidneys pointed to old-standing renal disease. All the cases admitted during the last fortnight were of a mild type, and most of them recovered under the dietetic treatment mentioned, unaided by medicines.

Even in the mild cases the urine was for some time suppressed, and the first urine passed was albuminous. The specific gravity of the first urine exhibited the greatest variations in the different cases, from 1002 in one case to 1062 in another. The acidity, too, varied considerably; for while in general the amount of free acidity was very great, the urine was in some cases neutral and even alkaline during the first two or three days after the cessation of the suppression.

With regard to the internal and the surface temperature, in a case of moderate severity, on the second day of a very slight collapse, that in the axilla was only 97° F., that in the rectum being at the same time 100·5°. On the following day, in the axilla, 97·6°; in the rectum, 99·5°. On the next day, when the sickness had entirely, and the diarrhœa almost entirely ceased, in the axilla, 98°; in the rectum, 99·1°. Dr. H. Weber remarked that among several other cases regularly examined in both rectum and axilla, the difference between the two localities amounted in one case during severe collapse to seven degrees Fahrenheit—viz., 95° in the axilla, and 102° in the rectum; while two days later, during the reaction, it was only two—viz., 97·2° in the axilla, and 99·2° in the rectum; and again, eight days later, when convalescence was established, the difference was scarcely one degree, being 98·2° in the axilla and 99·1° in the rectum. From all the cases thus examined, Dr. Weber was inclined to infer that during the stage of collapse the temperature in the intestinal tube was almost as much increased beyond the standard as that in the axilla was diminished; and that even in mild cases this condition, though less marked, was distinctly perceptible. It will be remembered that we recently referred to some observations made at the London Hospital which tended to the same conclusion.

In the case of well-marked cutaneous eruption, alluded to in the last report, perfect desquamation occurred, very similar to that in scarlet fever, commencing about the tenth day from the appearance of the eruption, and the twentieth from the beginning of the collapse, being most developed on the arms, and especially on the hands, less so on the legs.

## *BELLEISLE* HOSPITAL SHIP.

THE activity of the medical visiting staff in connexion with this hospital, and the apparent decline of the epidemic in and about the east of London generally, have reduced the admissions to less than one per day. Several severe cases have been lately received, but no death has occurred since our last report. All

decided cases of collapse continue to be treated with hypodermal injections of quinine, and an average mortality of rather less than fifty per cent. is the result, the whole number treated by this plan being, however, only twelve. It should be understood that these patients were excessively prostrated, and that the prognosis given by all who saw them at the time of admission was decidedly in the negative as to recovery. Mr. Harry Leach thinks that sufficient success has attended this treatment to justify a more extended trial. It is to be noted that of thirty-four strong injections used, only one has had the slightest tendency to unfavourable local results. Up to this date fifty-seven patients have been admitted, seventeen deaths have occurred, and four are now under treatment, but all, with one exception, rapidly convalescing. The average sojourn of each patient in hospital has been four days, and of the whole number three only have suffered severely from consecutive fever. Coasting sailors, as a class, are very hardy men, with a great deal of what is commonly called vis vitæ, and convalescence at this hospital, after secretion and elimination of urine have fairly recommenced, is very rapid indeed. The *Dreadnought* authorities were requested at the commencement of the epidemic to receive on the *Belleisle* any cases that might occur in the Deptford and Woolwich navy yards, but these establishments have hitherto been entirely free from cholera.

# Medical Societies.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JUNE 26TH, 1866.

DR. JAMES ALDERSON, F.R.S., PRESIDENT.

### REMARKS ON CHRONIC ALBUMINURIA, ORIGINATING DURING THE CONVALESCENCE FROM SCARLET FEVER AND OTHER ERUPTIVE DISEASES.

BY HERMANN WEBER, M.D., F.R.C.P.,
PHYSICIAN TO THE GERMAN HOSPITAL.

THESE remarks do not refer to the well-known and easily recognised acute scarlatinal dropsy or desquamative nephritis of scarlet fever, but to a chronic form of albuminuria originating occasionally at a much later period, when recovery had apparently been established already for several weeks. The author related three cases of scarlet fever, unattended with albumen in the urine or any other symptoms of renal complication during the first four weeks from the commencement. The subjects of the cases appeared quite well at the end of about a month, when they returned to their usual mode of living; but about three or four weeks later the general health became disturbed (loss of appetite and strength, headache, glandular swellings, boils, anæmia, and occasional sickness), and the urine, as soon as the patients came under treatment, was found highly albuminous. Perfect recovery took place in one case; while in another the general health became much improved, but a slight degree of albuminuria has remained; and in the third case death occurred seven years after the commencement from broncho-pneumonia, with uræmic symptoms, the post-mortem examination exhibiting waxy degeneration (amyloid) of the kidneys. The author maintains that the connexion between the scarlet fever and the renal disease in this class of cases is not the same as in the acute scarlatinal dropsy: while the latter may be considered as a part of the scarlet fever process, the former, originating at a much later period, is probably only so far connected with the scarlet fever as through it a greater susceptibility to the development of chronic renal disease is effected, in the same way as there results a tendency to other chronic affections, like glandular swellings, and eruption of boils. The author believes that the same tendency may be caused also by other acute diseases, especially those of exanthematous nature, and gave two cases in which chronic albuminuria took its origin in persons who had lately recovered from erysipelas of the head and typhoid fever respectively, in both of which cases, during the febrile state and during the convalescence, the urine had been quite free from albumen. He referred also to a similar case occurring after typhus fever, and described by Dr. Johnson in his work on Diseases of the Kidneys. (London, 1852, p. 408.)

The author was inclined to infer from such cases that amongst the many cases of Bright's disease the origin of which is uncertain, a not inconsiderable proportion may have been developed during the later stages of convalescence from exanthematous diseases; that, therefore, as urged already by Dr. Johnson with regard to fever, particular care ought to be taken during these stages with regard to diet, clothing, habitation, avoidance of over-exertion and exposure to cold and damp air. Dr. Weber further pointed out that the insidiousness of the commencement of this chronic albuminuria, as in four cases out of the five related, anasarca and admixture of blood with the urine were altogether absent. Lassitude, loss of strength, anorexia, swelling of the lymphatic glands, and eruptions of boils, being the principal symptoms, ought, therefore, always to lead to an examination of the urine, the more so as by an early discovery of the renal disease the chance of a perfect cure is much increased, as seen in two of the five cases reported.

The treatment consisted in attention to skin and diet; in the administration of iron with acidulated acetate of ammonia, and occasional doses of elaterium to relieve the kidneys, and in the use of the hot vapour bath or the warm wet sheet.

### ON THE DETECTION OF LUNG-TISSUE IN THE EXPECTORATION OF PERSONS AFFECTED WITH PHTHISIS.

BY SAMUEL FENWICK, M.D.,
ASSISTANT-PHYSICIAN TO THE CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, LATE LECTURER ON PATHOLOGICAL ANATOMY IN THE UNIVERSITY OF DURHAM.

The author states that he has included in his paper the results obtained from the examination by the microscope of the expectoration of 100 real or suspected cases of phthisis. The plan hitherto recommended of searching for pulmonary tissue in sputum has been to spread it on a flat surface, and to pick out of it with needles any portions that might appear likely to contain elastic fibre. He has, on the contrary, been in the habit of liquefying the expectoration by boiling it with a solution of pure soda, and then placing the fluid in a conical-shaped glass, when every particle of elastic tissue falls to the bottom, and can be removed and placed under the microscope, as is done in the examination of urinary deposits. In this way he has easily found $\frac{1}{1000}$ part of a grain of pulmonary structure after it had been mixed in bronchial mucus; and he calculates that $\frac{1}{1000}$ to $\frac{1}{5000}$ part of a grain may be detected in any expectoration that may contain it.

In 13 out of 23 cases in which tubercle was suspected to be in the first stage, lung-tissue was found in the sputum. In 7 of the 23 cases, there was no physical sign of tubercle, but its existence in the lung was suspected from general symptoms only; and in the expectoration from these there was no pulmonary tissue. In 16 cases there were stethoscopic signs leading to the belief that tubercle was present; and in 13 of them elastic fibre was found in the mucus coughed up.

There were 24 cases in which auscultation and percussion indicated softening of tubercle in the lungs, and in all pulmonary tissue was present in the sputa. In 15 the physical signs were of a doubtful nature, and 7 of these presented microscopic evidence of ulceration of the lungs.

In 35 cases the stethoscope indicated cavities, and in all these there were fragments of lung-tissue in the expectoration. In 2 cases the author had diagnosed enlarged bronchial tubes, and in neither of them was there any appearance of elastic fibre in the sputum. In 69 cases he counted the numbers and size of the fragments of lung expelled. In one specimen, coughed up in twelve hours, 800 fragments were found; and often 50 or 60 fragments were detected, where, from the stethoscopic signs alone, no great destruction of lung could have been anticipated.

The proportion of bronchial tubes the author found to be least in the stage of softening, and greatest where the stethoscope indicated cavities. The greatest proportion of fragments of single air-cells was found in the first stage, and the largest proportion of large fragments of lung where cavities existed.

The author concluded his paper by giving a number of practical directions as to the best method of conducting the examination of the expectoration, in order to find with quickness and certainty any pulmonary tissue that may be present.

### HYDATID OF THE LIVER, TREATED SUCCESSFULLY BY THE INJECTION OF THE EXTRACT OF MALE FERN INTO THE CYST.

BY F. W. PAVY, M.D., F.R.S.,
ASSISTANT PHYSICIAN AND LECTURER ON PHYSIOLOGY AT GUY'S HOSPITAL.

Harriet V——, a woman of pretty healthy appearance, aged twenty-one, admitted into Mary ward under the care of Dr. Pavy Oct. 4th, 1865. When three years old she was squeezed against a wall by a cart wheel, which struck her somewhere on the right side of the chest. No rib was fractured, and she

soon recovered from the accident. About six years ago the patient noticed a slight swelling in her right side, which has since continued gradually increasing in size.

On examination, a large deep-seated tumour was to be noticed occupying the right hypochondriac region, and extending considerably beyond, both above and below. Its boundary could be clearly defined inferiorly. It caused a considerable bulging of the ribs on the right side, and the right mammary gland was raised about three quarters of an inch above the level of the left. Fluctuation was apparent. Dulness extended as high as the lower border of the second rib on the right side.

The case was diagnosed to be one of hydatid tumour of the liver. The relationship that is agreed upon by helmintholo-gists to exist between the hydatid and the tænia, and the known effect of the extract of male fern upon the latter, suggested to the author the treatment adopted. The extract is not miscible with alcohol or water, but it was ascertained that a liquid sufficiently thin for passing through a fine canula was to be obtained by admixture with a little potash.

Nov. 6th.—A fine trocar and canula were introduced into the tumour by Mr. Durham, and about four ounces of a limpid colourless fluid allowed to escape, in order to diminish the tension of the cyst. A liquid consisting of half a drachm (by measure) of the purified semi-fluid extract of male fern, half a drachm of liquor potassæ, and six drachms of water, was then injected into the sac, care being taken throughout to prevent the entrance of air. The fluid removed was examined, and found to be non-albuminous, charged with a large quantity of the chloride of sodium, and to contain hooklets of the echinococcus. At the introduction of the trocar the patient complained of experiencing a considerable amount of pain, which she referred to the lower part of the abdomen. Some febrile excitement, vomiting, and purging followed, but there was no evidence of peritonitis.

10th.—On percussion, it was found that dulness did not extend so high in the chest on the right side by one rib as previous to the operation.

16th.—The patient was allowed to get up.

20th.—The tumour was found to be much diminished in size. It was much softer, did not extend so low down in the abdomen, and was much less distinctly circumscribed. The chest was resonant on percussion as low as the space between the fourth and fifth ribs.

29th.—The circumference over the most projecting part of the tumour before the operation was 34¼ inches; to-day it is 31¾ inches: showing a reduction of 2½ inches. Tumour very soft, and its lower border not to be defined as formerly. The patient, being well, was allowed to leave the hospital.

A fortnight and again a month afterwards she was seen, and found to be progressing satisfactorily.

May 10th, 1866.—Since she was last seen the patient had suffered from an attack of rheumatic fever with heart complication, and bronchitis. She had been in no way troubled with her side, and her circumference now was thirty inches. No swelling was perceptible to the eye, but a hardness remained in the hypochondriac region.

The inference to be drawn from the result in this case is, that the injection of the extract of male fern caused an immediate destruction of the life of the hydatid without the production of suppuration, and that a rapid absorption of the fluid element of the cyst afterwards took place.

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PERI-UTERINE ABSCESS. — M. Alphonse Guérin called the attention of his colleagues, at the meeting of the 20th of June last of the Surgical Society of Paris, to an abscess of this kind, which was the result of the removal of a polypiform body of small dimensions from the cervix uteri of a middle-aged woman. No violence whatever was used; but the patient died of the consequences of the abscess, no peritonitis, however, having occurred. M. Guérin mentioned the case to prove that such abscesses are met with in practice, and that peritonitis, within the pelvis, is not always the cause of death.

DRINK AND MADNESS.—Dr. Joly has lately made a report to the Academy of Medicine of Paris, in which he deprecates the increased tendency to the consumption of alcohol by the French nation. A hundred years ago France only consumed 200,000 hectolitres of alcohol yearly—she now consumes 4,000,000. Dr. Joly declares that an increasing tendency towards mental disease has been generated by the increasing consumption of spirits; and an official report lately published seems to corroborate his views, the abuse of alcohol accounting for one-fifth of the insanity in France.

# The Lancet Sanitary Commission

FOR

## INVESTIGATING THE STATE

OF THE

# INFIRMARIES OF WORKHOUSES.

## REPORTS OF THE COMMISSIONERS.

### METROPOLITAN INFIRMARIES.

### No. XIII.

### ST. JOHN'S, HAMPSTEAD.

THE infirmary of the Hampstead workhouse is not placed in a separate building; it consists of eight wards, which are included in the body of the house, and are mostly situated in the centre of the second and third story. The workhouse is built on a magnificent site, only just sufficiently below the level of Hampstead-heath to gain an advantageous shelter on the north. The southern front looks over a wide and open prospect towards London. On the east and west, however, there are poor and squalid houses in an undesirable propinquity.

The buildings are, unfortunately, of a patchwork character, and are singularly ill-contrived for the purposes of general ventilation—a circumstance which is partly attributable to the additions and reconstructions which have taken place. The wards which are devoted to infirmary purposes are, to a certain extent, isolated by walls and doors from the rest of the house, and are approached by two central staircases of their own. But the partitions which maintain the *quasi* separation of the infirmary are in themselves obstructive of general currents of air through the house; and, on the other hand, they are left open at the top to allow of the infirmary department ventilating into a general open space under the skylights of the roof, and in this way the air of the sick department may be said to mix with the atmosphere of the rest of the house—an undesirable arrangement. The staircases are far too narrow, both for ventilation and for convenience. The wards are badly constructed as to the situation of the windows: thus the one male and the three female wards which face the south have but two windows each, which are placed at the end of the ward; there is a ventilating fanlight, however, over the door, which is opposite to these. The cubic space allowed for each patient averages about 600 feet. In the corner of each ward is a ventilating shaft, about two feet square, on Watson's "syphon" principle, having a diaphragm which is supposed to establish an equable up and down current. Opinions differ as to the working of this arrangement. Our own impression of it is not very favourable; and we were informed by a lady nurse, whom we found in temporary charge at our second visit, that the inconvenience of cold down-draughts is too severe to allow the apparatus to be worked in inclement weather. Two of the female wards (Nos. 6 and 7), which are placed one above the other, present the very objectionable arrangement of an open wooden staircase leading from one to the other. This must of course allow the foul air of the lower ward to pass into the upper one; and, by a strange perversity of the constructor, this evil result is still further ensured by a ventilating grating which opens through the ceiling of the lower and the floor of the upper apartment. No. 2 (men's surgical ward), which is situated in the right wing of the building, is somewhat better off for ventilation, having a row of three windows facing the door; but the arrangements hardly permit the possibility of ensuring fresh air during the night. The lying-in ward which existed at the time of our first visit was an extremely improper apartment, very small, with only one window and most imperfect ventilation. Fortunately the number of lying-in cases was very limited; but the bad cha-

racter of the room had been plainly evinced by a severe case of puerperal fever which had recently occurred. On the strong recommendation of the medical officer, it has been resolved to knock down a partition, and thus greatly enlarge this room; securing the advantage of three windows, and providing, by an arrangement of folding doors, for the formation, when required, of a small separate children's sick ward.

The number of sick cases in the Hampstead Workhouse was no more than fifty-two at our last visit (sixty-seven at the time of Dr. Smith's and Mr. Farnall's visit), and this represents a considerable increase on what it formerly was: in fact, the increase of the sick is causing the infirmary department to be felt as an inconvenient encroachment on the body of the house, and it may well be regretted that a separate and complete infirmary building has not been erected, especially as there is an admirable piece of ground belonging to the parish, on the north side of the workhouse, which might be utilised for this purpose with the best effect. It will be easily understood that this has not presented itself to the guardians as a very pressing need, considering the small total number of the "sick," a good many of whom are, moreover, not the subjects of severe disease; nevertheless, it is undoubtedly most desirable that all the sick—even those bedridden, who are chiefly laid up by age and infirmity—should be moved from their position in the body of the house, which is decidedly unfavourable to their health.

The nursing department was, until quite recently, entirely conducted by pauper inmates of the house, and from what was observed by the present medical officer when he took office, some eighteen months since, it was obvious that the system worked badly: in particular, that gentleman found that there were several bad cases of bed-sore amongst the patients. Acting on his report, the guardians appointed a paid head nurse, of high capacity, and by her exertions things were put on a greatly improved footing, so much so that it is much to be regretted that she has recently resigned her situation. The gap was filled, till a proper successor could be obtained, by the kind voluntary services of a young lady who received her training at Kaiserwerth, on the Rhine. A proper successor has now been found, who receives a salary of £25 per annum. Of the pauper attendants we can say but little that is good: they appeared to be feeble and inefficient, though they might be kept in something like discipline by the effective supervision of the head nurse and the surgeon; and it is certainly very unlikely that the duty of night-nursing, when required, can be at all properly performed by the pauper inmates who are casually detached for that business.

The influence of the present medical officer, Dr. W. H. Cook, has been decidedly beneficial to the establishment. This is apparent in the aspect of the wards, and the history of the many little improvements in their furniture and fittings which have been introduced. Dr. Cook has a moderate and manageable charge under his hands; and though he only receives the inadequate salary of £40 per annum, out of which he is very improperly required to find medicines (and dispense them), he has bestowed much pains on the infirmary. He has procured the erection of very convenient shelves running round each ward, above the bed-heads, on which are placed the medicines belonging to each patient; and where wine is prescribed, this also is kept at the bed-head in a bottle of a special green colour. Very excellent diet and prescription papers are also affixed to the beds; each of these has a folding fly-leaf, in which are printed certain headings, under which the main features in the history of the case are entered by the surgeon, who can thus refresh his recollection of its details at a glance. All such comforts as foot and stomach warmers are plentiful; there are small dinner-tables for the bedridden; portable closets have been provided for the use of the patients; they are each supplied with basin and towel; gas is laid on; and something has been done towards making the wards cheerful with pictures. The guardians appear to be sincerely anxious to behave with proper liberality to the sick; and their chairman, who accompanied us in our second inspection of the wards, was most courteous and most willing to listen to suggestions. Amongst other improvements recently projected is the erection of two very good bath-rooms in the infirmary—a measure which is excellent, not only for its own sake, but because it has been obtained by the abolition of one-half of each of two very objectionable double watercloseta. The closets are still, however, a serious defect in the establishment; they are so situated that they have no proper outer-air ventilation, nor is it easy to see how this can be remedied so long as the infirmary is retained in the body of the house.

Though not specially within the limits of our inquiry, the nursery, the casual wards, and the fever wards claim some notice. The former of these is a gloomy apartment, though of pretty fair size, in a part of the building which is of older date than the rest. It has an objectionable watercloset, which projects into the apartment. We saw here some half-dozen children with their mothers; two of the children had ophthalmia. The casual wards and fever wards form a separate block of building at some distance from the house. The former department consists of a male and a female apartment, both approached by one staircase, though there is a door of separation at the head of the stairs by means of which the females are locked in. A most objectionable feature is this: that the women's watercloset is situated just under this door, at the angle of the stair-landing. This is, of course, very improper in a sanitary point of view; and, besides, it is difficult to believe that decency can be always preserved. There is only one (male) attendant for both men and women; and there is no supervision during the night. The fever wards were built in such a manner as to be entirely unfitted for their purpose; and Mr. Farnall some time ago condemned them on account of the extremely bad ventilating arrangements. At present fever cases are not intentionally taken in at all; and the empty fever wards are used as a place of isolation for any individual "casual" or inmate who may enter the house with undefined symptoms pointing to the probability of his being infected with contagious disease.

The general conclusion to which we have come with respect to the treatment of the sick at Hampstead is this: If the guardians would consent to the *essential* measure of building a proper infirmary on the piece of ground already mentioned, constructed on hospital principles, and capable of containing sixty beds, their sick people might be perfectly well cared for by their present surgeon, who ought, however, to be provided with medicines, and a dispenser (or a salary which would pay for one). It would, also, be highly desirable that a parish *fever-house* should be separately built, as the situation would be admirable; and, on the other hand, it is most improper that the very considerable number of fever patients furnished by the filthy courts and alleys of Hampstead should be allowed either to remain and spread infection in their own wretched neighbourhoods or to be transported some miles to the Fever Hospital at Islington. If these things were done, and if the medical officer were assisted by the advice and moral support which would be given by the visits of a properly qualified medical inspector, there is every reason to think that the infirmary of the Hampstead parish might become of the greatest possible benefit to the whole district which it represents. But it would be absolutely necessary to the successful working out of such a plan, that the best scientific advice should be procured and strictly followed by the guardians; and that no short-sighted motives of economy should prevent their adopting the principles (especially as to proper day and night nursing by a sufficient number of paid nurses) which are allowed by common consent of medical men to be necessary to efficient treatment in an hospital or an infirmary.

# THE LANCET.

LONDON: SATURDAY, SEPTEMBER 1, 1866.


WE hear a great deal now-a-days about the advantages of the division of labour. We also hear a great deal about its evils. As usual, there is much truth on both sides. It is undeniable that the deeper and more accurate knowledge which we now have of such sciences as Chemistry, Anatomy, and Physiology, is almost wholly due to the labours of specialists—to the close and undivided attention which only the specialist can afford to expend upon the examination of his particular subject—to the publication of the results of his researches, and to the criticism of these by other specialists who have gone over the same ground. The number of new facts or phenomena which have thus been added to the pre-existing store is enormous, and no amount of praise is too much for the perseverance, self-denial, and inexhaustible resource with which specialists have pursued their several lines of inquiry.

But, on the other hand, it is urged, the specialist gains his object at great cost to himself. In his one-eyed search for truth he has missed a multitude of wayside attractions. If he has succeeded in getting fruit from a particular branch of the Tree of Knowledge, it has been at much the same loss of individual symmetry as is suffered by those animals who, while seeking their sustenance or their safety in climbing trees, develop their prehensile at the expense of their other organs. Nay, more, like the running stream, as he gains in intensity, he loses in breadth. Banked up between the sides of his narrow intellectual channel he runs, to be sure, more deeply and swiftly on his course, but he misses the fair landscape on either margin, and reflects but a small strip of the overarching heaven. In this respect he is, indeed, a "martyr to science," and becomes its useful servant at the sacrifice of intellectual virility and productive power,—on much the same principle as some singers in the cathedral service of the Roman Catholic church are known to be indebted for their vocal advantages.

Again, the anti-specialist is apt to plume himself upon his generalizing gifts—upon his faculty of seizing the connecting principle that traverses a group of phenomena—upon his power of educing cosmos from chaos. But the specialist retorts that, but for the facts which he has supplied, the generalizer would have no materials to work upon—that generalizations are true or false in proportion as the facts upon which they are founded are well or ill ascertained, and that ABERNETHY simply reversed the truth when he said that there were more false facts in the scientific world than false theories.

Between the two disputants such a philosopher as Mr. GROVE comes as an opportune mediator. He of all men is an example of how far the deepest, most "specialized" researches are compatible with the most comprehensive generalizations. The author of the scientific classic, "On the Correlation of the Physical Forces," speaks with peculiar authority on all questions as to the relative value of fact and theory. He can tell us that the rapid progress of physical science is due to Associations established for the furtherance of special branches of it—to the opportunities these afford of submitting special notices and memoirs to a competent tribunal, at which all who have any information to give on the particular subject will get a hearing, and at which contemporary inquirers can combine, compare, and check their observations and conclusions. But he can also show us, with the most luminous exposition, that there is not one of those special sciences which is detached or even separable from the others; that through them all runs the great principle of continuity, by which each is made to modify or to "condition" the rest; so that, in the profound language of KANT, the universe may be regarded as one vast organism, in which every element may be alternately viewed as effect and cause. In this truly philosophic spirit, Mr. GROVE reviews a number of special sciences which have recently made vast progress; and shows, with almost an excess of clearness, how gradually, yet necessarily, they modify, check, and balance each other—how impossible it is to say when the influence of one becomes inoperative upon the others—how impossible it is to conceive the withdrawal of even an atom from the cosmos. This is the lesson which future meetings of the British Association will have to teach with ever-augmenting cogency, and which must discourage the intrusion of all partisan feelings, whether of specialist or anti-specialist, into its transactions.

Nor let it be forgotten that Mr. GROVE is a specimen of that complete professional mind which is likely to become every year more common. Thanks to the advanced condition at which the majority of sciences have now arrived, they are capable of being much more methodically arranged, of being much more systematically and therefore more easily mastered. There never was a time when extra-professional knowledge was more abundantly within the reach of the votaries of every liberal calling. There never was a time when the thirst for science was more widely diffused. Of Mr. GROVE's crowded audience there were many whose business was neither in the laboratory, nor in the dissecting-room, nor in the observatory, nor in the fields, nor among the rocks. A great proportion of the assemblage was simply composed of professional men who, in an enlightened love of knowledge, had acquired so much of the general principles of science as to take an intelligent interest in the proceedings of the various sections of the Association. These were the "thoroughly instructed auditors" whom Mr. GROVE had to address, as PERICLES would have spoken to the συνειδότες ἀκροῶται of ancient Athens; and these must have met, associated, and separated with an enhanced respect for each other, and for each other's callings. As such occasions of enlightened intercourse are repeated, that mutual respect will be deepened. The jealousy which the votary of the Law too often exhibits of the votary of Medicine—the rudeness with which the barrister is sometimes known to treat the medical witness—may be expected to disappear. The physician will come to recognise the truth that he has often to examine and pronounce upon the health of patients whose knowledge of the human frame and of its functions is hardly inferior to his own. The divine will be convinced that science is cultivated by the followers of other professions in no spirit of hostility to his own. While all may be expected to co-operate, with the generous impulse of philosophers and philanthropists, in purifying the fountain-heads of Knowledge, and in diffusing its life-sap through the whole system of society.

THE tendency to draw decided inferences in favour of particular methods of treatment for cholera from statistical data of limited extent and including dissimilar factors is one which we have frequently had occasion to notice and lament. It is a prevailing sin in medical literature that conclusions of this kind are hastily adopted and enthusiastically urged, without sufficient grounds really existing for any sound inference whatever. This has been the incessantly recurring defect in writings upon the therapeutics of cholera; and there is hardly any remedy that can be mentioned for which triumphant success has not been claimed, either upon the basis of the collected results of a long series of cases, or the individual experience of some one practitioner struck by the admirable and strictly curative influence of the drug in his own practice. The list is too long, and the subject too melancholy, to make us willing to enter upon a retrospective view of the therapeutics of cholera. It would almost amount to an exhaustive recapitulation of the materia medica; and it must conclude with the acknowledgment that we have no medicine, as such, which can be fairly spoken of, in the present state of our knowledge, as in any sense a cure for cholera. Nor can it be said that the proper treatment for cholera irrespective of drugs is yet fully established. Here, however, there is by far more hopeful progress being made. The mere recognition of the fact that in the true choleraic condition medicaments are not absorbed is in itself a useful step, because it will enable us all to work out the natural history of cholera, and prevent our pouring-in medicines which are inert because not absorbed, and teach us not to confuse the phenomena of the disease with the evidences of the action of drugs. Meanwhile it is important not to mislead ourselves by attaching undue importance to the effects of treatment employed in relieving early or modifying the later symptoms. A caution may be derived from the contrasted statements of our two Liverpool correspondents of last week and the week before concerning the result of the mild proceeding which is now called the "castor-oil treatment." Dr. M'CLOY, of the Liverpool Parish Infirmary, gives the following figures as showing the results of the various methods of treatment during the first period of the epidemic, from the 10th to the 20th of July:—

| Cases. | Mode of treatment adopted. | Deaths. |
|---|---|---|
| 5 ... | (Moribund on admission) ... ... | 5 |
| 19 ... | Camphor ("Rubini" plan) ... ... | 13 |
| 7 ... | Ice to spine, and ice-water... ... | 7 |
| 25 ... | Mixed treatment ... ... ... | 13 |
| 56 | | 38 |

Against this he sets the figures from the 26th of July onwards during the second period of the epidemic, as representing "the results of the eliminative treatment":—

| Cases. | Mode of treatment adopted. | Deaths. |
|---|---|---|
| 11 ... | (Moribund on admission) ... ... | 11 |
| 2 ... | Internal administration of strychnine | 2 |
| 4 ... | Astringent and stimulant ... ... | 4 |
| 50 ... | Eliminative ... ... ... ... | 17 |
| 67 | | 34 |

This seems to show a difference in favour of the latter treatment, and Dr. M'CLOY italicizes the statement that "the eliminative treatment has been most successful." Next week, however, our Liverpool correspondent forwards us longer series of figures from the old seat of the epidemic. At the Ashfield-street sheds "the treatment adopted is generally as follows: a castor-oil injection, repeated if it brings away any feculent matter; outward applications of mustard or turpentine, a hot bath, and the administration of a mixture of chloroform and aromatic spirits of ammonia; the inhalation of chloroform is also tried in many cases; in those instances where, the vomiting having ceased, the suppression of urine continues, with a state of half-stupor and collapse, acetate of potass is given, and the bladder is injected with warm water. Since the opening of these sheds, on the 5th of this month, to the present time, August 20th, 166 patients have been admitted, of whom 79 have died, 57 have been discharged cured, and 30 remain." Our correspondent observes that these numbers show quite as favourable a result as any other relating to cases in which another treatment has been adopted. And if we compare them with the above figures of Dr. M'CLOY, we shall observe that they will bear comparison. The longer series of figures from the Liverpool Workhouse Hospital run thus:—

"At the Liverpool Workhouse Hospital 175 cholera patients have been admitted since the commencement of the outbreak, and of these 88 have died, 56 have been discharged cured, and 31 remain. The treatment here continues to be "eliminative," that of castor oil in most cases; in some the croton oil is substituted, whilst in others small doses of turpentine are combined with the castor oil."

So that, as a matter of fact, statistical results are equally balanced, and deal with such small numbers as to be of very little value. Dr. M'CLOY, however, having persuaded himself of his great success in treating the second set of cases with castor oil, adds that "it has been a success which those only who have seen and compared the relative severity of the cases can appreciate—a success which statistics cannot show." A sort of chance cast at a couple of medical books lying before us gives the following paragraphs, which we cannot help reproducing side by side with the eulogy, that it may, at least, teach caution and induce a sober scepticism which at present is the most useful frame of mind in considering cures for cholera.

"During the recent epidemic of cholera (1849) *tannin* was recommended and employed by the younger Graefe, of Berlin. He prescribed it in upwards of thirty cases, several of which were in the state of collapse, and of these *only two proved fatal*. The dose was from five to ten grains, half hourly or hourly. Dr. Willebrand, of Finland, in reporting the treatment to the Medical Society of Sweden, states that he was himself a witness of this brilliant success."*

"Donaldson states that he obtained, during the cholera epidemic of 1861, a wonderful amount of success from the employment of chloric ether with sp. ammon. aromat., half a drachm of each every twenty minutes. Hydrocyanic acid was added when the vomiting was more than usually severe, and solution of *muriate of morphia* when the alvine evacuations were unusually great.....*Catechu* was also used in some cases as an astringent. Of eighteen cases of true malignant cholera treated in the garrison hospital, six only died, and the remainder speedily recovered. Of several apparently hopeless cases in the 38th Regiment, not one died. A little *brandy* and water was given occasionally to relieve thirst, and sulphuric acid drink if desired."†

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WE have lately expressed our opinion that the discussion on the change-of-type doctrine of disease has been well-nigh exhausted. If we revert to it, it is not in the hope of being

* Edin. Med. Journ., July, 1851, p. 62.
† Syd. Soc. Year Book of Pract. Med. for 1863, p. 176.

able to say anything new upon the matter. We are induced to do so, partly out of respect to one of its most eloquent advocates, who has lately given it up, to the great credit of his candour and, as we think, of his perception; and partly with the view of doing historical justice to the men by whom chiefly we have been brought to think scientifically of the uniformity and consistency of disease.

It is not conceivable that much new material will be obtained for the elucidation of this great question. The disease of former generations was such a complicated thing, so essentially a compound of the original disease and various abnormal states induced by the treatment which was thought necessary to subdue it, that we shall scarcely extract from the records of it any data that will serve as a basis for argument. To say nothing of the doubtful diagnosis of pneumonia which alone could be possible to the acutest physicians before the time of LAENNEC, who does not see that every real such case became in twenty-four or forty-eight hours one of pneumonia *plus* anæmia, and that the hæmorrhages practised with the best intentions really complicated the whole character and progress of the case? So that even if our knowledge of the symptoms of disease were as perfect as was that of the physicians of the time, we still should not be always able to know which symptoms to attribute to the pneumonia and which to the anæmia. Moreover, it should be remembered that people were bled in those days for everything and for nothing. They were bled for the most trifling ailments; and if they had no actual disease to be cured, such was their love of bloodletting that they were bled on the theory of prevention being better than cure. It is not conceivable that the records of such a time can be made available for scientific purposes. Dr. GEORGE W. BALFOUR has indeed done good service of late in ransacking the manuscript clinical lectures by CULLEN, of which there are nine volumes in the library of the College of Physicians of Edinburgh, extending over several years (1764–1774), and comprehending over two hundred cases. Dr. BALFOUR has looked diligently through the whole of these. He has also examined carefully manuscript volumes of clinical lectures by both CULLEN and GREGORY in the library of the London Medical and Chirurgical Society. He has published portions of these lectures in a pamphlet, which all interested in the history of medical practice, and who cannot consult the originals, should read. It requires only a slight glance at the records to perceive that they are more valuable as records of practice than of diagnosis. They are valuable for this purpose above all others, as showing that bleeding—for the explanation of the discontinuance of which some of our greatest physicians have entered into the most elaborate arguments and adopted the most doubtful theories—was practised indiscriminately, not on account of any particular state of the pulse, but from a general opinion that it was a universal remedy. So far as this particular question of the pulse is concerned, Dr. BALFOUR quotes Dr. GREGORY to the effect that in pneumonia the pulse was remarkably soft and small, and only became hard when the pain affected the pleura.

If, then, the records of clinical medicine are only available for the roughest purposes, we must feel the difficulty of arriving at anything like certainty as to the nature of disease in other times. It is important to observe, in passing, that Dr. BALFOUR gives it as his opinion that the pneumonia cases described by GREGORY and CULLEN, as far as they can be recognised, resembled very much the ordinary run of cases of pneumonia coming to hospital now-a-days. We believe this to be the case. We are confident of seeing from time to time cases of pneumonia, with everything in the temperature, the pulse, and the breathing, which would by the older physicians have been thought to call for good generous bleeding, get perfectly and quickly well without it. What, then, is the explanation of this change? It must be sought either in disease or in discovery. Either disease has changed its character and requires a different treatment, or a great discovery has been made of a better method of treatment and a truer notion of disease. This is a serious alternative. To say nothing of the bearing of a right view on the reputation for utility of past medicine, such a view has a most direct bearing upon the merit of living or lately dead men. A few authoritative physicians still adhere to the notion that disease has changed. We presume that Dr. STOKES and Dr. CHRISTISON still lend the weight of their great names to this notion. There is a steady setting in, however, of scientific opinion in favour of the view that a great discovery has been made—that general disease remains very much the same in all times, and admits of a better treatment than was formerly practised. Sir THOMAS WATSON, whose sympathies were all the other way, and whose rich and eloquent illustrations of the older practice will survive amongst the medical classics of the century, has expressed his conversion to this opinion in a letter to Dr. MARKHAM, published in the preface to Dr. MARKHAM'S Gulstonian Lectures. Our readers will be curious to know the way in which Sir T. WATSON explains how he was so long a believer in the change-of-type theory. His statement is highly instructive, though we venture to think it is not quite full. First, Sir THOMAS tells us he had faith in the teachers at whose feet he had learned. He was slow to believe anything that involved believing them to be wrong. All honour to him now for having given such proof that one thing was dearer to him than even the teachings of ALISON.

Amicus Plato, amicus Socrates, magis amica Veritas.

Then Sir T. WATSON tells us that, as a matter of personal observation, he did not find the symptoms and conditions which were theoretically held to justify bloodletting, and so he came to have a vague notion that the disease he was seeing was something different from that which his teachers had described. He next credits the influenza of 1833 with a great effect upon the views of medical men.

"The abstinence from depressing measures in influenza was continued to cognate and extended to other disorders; and thus men learned the safety and the wisdom of a less heroic treatment of disease in general, and thus the doctrine now called change of type got plausible support."

The circumstance which Sir T. WATSON next mentions, as indeed principally influencing his mind in favour of the change-of-type doctrine, was the experience of his friend Dr. LATHAM in the matter of fever—encountering a form of fever after the cholera of 1832 less tolerant of bleeding than formerly. This he explains was typhus, not typhoid, as in Dr. LATHAM'S former experience. We should not have thought that typhoid was so much more tolerant of bleeding than typhus as would appear from Sir T. WATSON'S statements. A later influence with this physician in keeping him a believer in the doctrine of change of type was the consensus of opinion among older medical writers.

Sir THOMAS WATSON was anxious in his letter to do two

things—first to make a candid confession of change of opinion, and secondly to show that he had not held that opinion at random or without good reason. In these two objects he has perfectly succeeded. The letter consists rather of the justification of old opinion than of any statement of the grounds of the writer's present belief in the general uniformity of disease. Such a statement would have completed Sir T. WATSON'S letter, and been very acceptable to the profession. We may hope that he will yet make it. It would be the proper qualification of the influence of his famous Lectures. Meantime, and in leaving this subject, we only do justice in remembering men who have urged the doctrine of the uniformity of disease, and shown by clinical facts and able reasoning thereupon, in the wise words of ALISON, "*the natural tendency of most kinds of diseased action to spontaneous abatement, to which the action of almost all remedies is subservient, but which is very frequently mistaken for the effects of remedies used.*" Among such men, Dr. GEORGE W. BALFOUR, now of Edinburgh, Sir JOHN FORBES, and Dr. J. HUGHES BENNETT, are conspicuously worthy of praise.

# Medical Annotations.

"Ne quid nimis."

## THE COLLEGE OF SURGEONS.

AT length we have to record a definite and decided result from that infusion of new life into the Council of the College of Surgeons which it has been the business of the Fellows to effect, and ours to support, during the last five years. The last election has, as we prognosticated would be the case, gone so far to restore the "balance of power" between the senior or self-conservative and the junior or reforming section of the Council, that it became possible to make a move with some hope of success. Accordingly, at the first Council meeting after the late election, Sir William Fergusson, who as the first councillor elected out of due course and not from seniority, may justly be regarded as the head of the reform party, gave notice of his intention to bring forward a resolution that Examiners should not hold office for more than ten years. In regular course, this important proposition came before the Council at its meeting in August, when, having been moved by Sir William Fergusson and seconded by Mr. Hancock, it was carried by a considerable majority. It must not be supposed that such a revolutionary measure was carried without much discussion and most decided opposition on the part of those holding office, but we are happy to know that the measure received the fullest support from those recently elected, who have thus fulfilled the pledge given at their election. It may be doubted whether ten years is not too long for an examiner, who rarely, if ever, begins his work till he is sixty years of age; but ten years will be a great improvement upon the twenty or even twenty-five years to which the appointments, which are virtually for life, now run.

The practical bearing of the resolution of the Council to which we have alluded must not be misunderstood. It has no direct action like a bye-law, since it is impossible to frame a bye-law which would contravene the section of the Charter which unfortunately enacts that it shall be *lawful* for the Council immediately to re-elect its retiring examiners. It is lawful, but the Council has now declared that it is not expedient to re-elect more than once, and those who have thus pledged themselves can hardly venture when the day of election comes round to stultify themselves by voting in any other way. But there are three examiners, Messrs. South, Cæsar Hawkins, and Luke, whose days of re-election never come round, since they, under the Charter of 1843, "hold their office of examiners during the pleasure of the Council, and so long only as the Council of the College shall think fit." These gentlemen have enjoyed the sweets of office for eighteen, seventeen, and fifteen years each respectively, and we now await their decision, whether in the face of a formal resolution of the Council they will continue to hold office until a distinct proposition for their dismissal be brought forward, as it assuredly will be, or whether they will have the good sense to resign the posts which they have so long filled, and to retire in a more dignified manner.

The thin edge of the wedge has now been introduced into that dense and compact body the Court of Examiners, and we trust that it will shortly be driven home with great and brilliant results. We have reason to believe that the entire constitution of that Court will probably undergo investigation and revision before long, but in the meantime, and in the hope of shortly occurring vacancies, we beg to impress upon the members of the Council the following extract from the bye-laws relating to the election of examiners: "Every member of the Council present, and intending to vote, shall put into the balloting-box a slip of paper containing the name of such Fellow of the College, *whether a member of the Council or not*, as he may think fit and proper to be elected an examiner of the College." A very little previous arrangement will serve to unite the reforming votes in favour of one eligible candidate, and thus the intentions of the framers of the Charter of 1842 will be fulfilled.

## SPECIFIC FAILURES.

THE late outbreak of cholera has been as fruitful as ever in the production of "sure preventives" and "certain cures" for the disease. The resident medical staff at the London Hospital have been wearied with applications from enterprising traders, who foresaw the advantage of being able to publish of their specific that "it had been employed at the London Hospital." To attend to these applications, or even to reply to the letters accompanying them, would have occupied pretty nearly the whole time of the staff. The "certain cures," therefore, which consisted for the most part of various astringent preparations, were prudently left untried. An exception was, however, made in favour of the solution of camphor recommended by an Italian physician. This was carefully tried in several cases. It proved a complete failure. In the Liverpool Parish Infirmary, a still more extensive trial showed the utter uselessness of the "specific." Just now, as "Rubini's camphor" is being extensively puffed, it is as well to remind our readers of these circumstances, so that valuable time may not be lost in trying a substance the inutility of which has been completely proved.

## CONSTANT WATER-SUPPLY.

ON another page will be found a short notice of a second meeting of delegates from London parishes in connexion with this very important subject. It is gratifying to find that, upon the principle "better late than never," the parishes are at last taking up the matter in earnest. Years past it must have been evident to them (it has been to every person who thinks at all upon the subject) that in the water-supply and means of storage in London there are active causes of disease, which have over and over again been proved to be full of peril. It is unnecessary to repeat the oft-told instances, the facts upon a large scale, which Mr. Simon, Dr. Acland, and others, have placed on record.

That there is a remedy for this evil is sufficiently clear; and it is quite time for the people of this country to reconsider this question of expense *versus* health, *versus* humanity, *versus* our duty to our neighbour. A report upon this same subject, by Mr. Rendle, formerly the health officer of St. George's,

Southwark, has been issued by the vestry of that parish. It appears to us to merit the most serious consideration of the authorities. The statements in this report, and the points which will occur independently to every mind, compel us to ask why the water-supply in such a place as London has been suffered to remain so long in this scandalous state. In former days, before the sewage of the towns was poured into the river, the water no doubt *appeared* far worse than it now does. But it must not be forgotten that it then brought down little else than earthy matter; the streams had not then been generally polluted with cesspool drainage. Now the apparently clean water may, and does, bring with it the minute germs of cholera and like diseases to those drinkers lower down the stream who happen to have their supply from it. For this reason careful people are now boiling the water before they drink it, and it is no doubt very necessary to do so. A very little leaven, so small even as not to be at present amenable to microscopical or chemical research, may leaven the whole in a most dangerous manner. Let us, then, have pure water and plenty of it. The impurities of food are, as a rule, far less dangerous than the impurities of water; matters in solution pass so rapidly into the system.

As to storage, Mr. Rendle says—

"Inspections made within the last year have shown that in numbers of cases [he might have said numberless cases] the poor have no water receptacles, properly so called, at all. In others they have, as makeshifts, tubs, jars, barrels—wholly unsuited for the purpose; these, moreover, kept in overcrowded and uncleanly living-rooms, or in extremely filthy yards. In others there are receptacles in bad repair, or more or less rotten and tainted. In most cases these receptacles are without covers, notwithstanding they are almost necessarily placed in situations full of offensive emanations, or where they must in various ways receive dust, smoke, and the like."

We may as well quote the passage throughout:—

"To show the almost impossibility of keeping water reasonably pure in the receptacles in use, let it again be noted, and never forgotten, what kind of receptacles are generally in use among the poor; that they are usually placed of necessity near to closets, privies, dustheaps, untrapped sinks, open drains, and in filthy sloppy yards—that from these and other causes it is almost impossible to keep water other than in a tainted atmosphere. The full force and vital consequence of this argument will be understood by calling to mind how largely water absorbs deleterious and other gases. One thousand gallons of water are known to dissolve at the common temperature—46 gallons of oxygen; 25 of nitrogen; 2500 of sulphuretted hydrogen, a sewer and privy gas productive of fever; 1000 of carbonic acid; and 500,000 of ammonia, a product of animal decomposition, as in urinals. The result of all this is, among the poor especially, that the supply is very impure indeed; and in quantity it does not perhaps exceed, on the average, five gallons per individual among this class of people. This, whether a little more or less, is altogether inadequate: consequently, filthy houses and filthy habits; and the result of these, disease, personal degradation, and neglect."

## THE MADEIRA SANATORIUM.

THE collapse of the above institution has created some disappointment. From the more unfavourable of two published statements it appears that five only of the twenty patients advanced in disease during the winter; and one death is reported from sudden hæmoptysis after steady improvement. Thirteen lost weight. On the other hand, of fourteen accounted for as regards general health, nine are better.

That such results are negative is the worst that can be said; and even the loss of weight, slight in most of the cases, is by no means so significant in that warm climate as in England. The subscribers, therefore, are not unreasonably anxious to continue the charity. Increased facility of access gives much importance to foreign winter resorts, and it is suggested that so valuable an opportunity for the investigation of climate ought not to be hastily abandoned. Fragmentary communications have furnished much information, but the authentic records of a local sanatorium would not savour of personal advertising.

The general aspect of the Madeira institution, and perhaps gratitude for received benefit, encouraged liberal subscriptions for a second winter. All this money has now to be returned, including a donation from H.R.H. the Duke of Edinburgh. But the subscribers desire to maintain the charity, and are seeking elsewhere the co-operation which is declined at Brompton.

## THE LINCOLN COUNTY HOSPITAL.

MISS LOUISA BOUCHERETT has addressed a very sensible and unanswerable letter to the editor of the *Stamford Mercury* with respect to the cause of the late lamentable deaths of two successive head nurses in Lincoln Hospital. She quotes the reports of the medical officers to show that it is the most unhealthy site possible. The following extract from one of these reports is too remarkable to be passed over. They state, in reference to a healthy hospital, "such a house the present one is not, and such a house it cannot be converted into, nor can it be made nearly to approach such a standard; for its defects are numerous, great, and irremediable."

This is not all, for it appears that alterations were proceeded with, and were commented on by officers of the Board of Health in the following terms in the Appendix to the Sixth Report, 1863, as follows:—"Thus far the improvements appear to have been judiciously conceived and successfully carried out; but there remains something which can hardly be remedied. From the defective outfall the drainage cannot be perfect; from the confused construction of the hospital thorough ventilation is impossible."

Miss Boucherett, in her able letter, enumerates several other grave deficiencies in the construction of the hospital, and concludes as follows:—"Miss Nevile earnestly desired a new building. Mrs. Whitehead said shortly before her death: 'I had meant to have said so much at the next meeting; perhaps my death will say it better than I could. They must see it now.' As their spokeswoman, I address myself to the gentlemen of this county; and I hope that, where these ladies have given their lives, men will as freely give their money."

Miss Nevile, whose name appears so prominently in the letter, was the lady whose exertions in the cause of humanity called forth such spontaneous testimonies to her worth from all the leading journals of the kingdom. Miss Boucherett has done service to the poor by her communication to the *Stamford Mercury*. It remains to be seen whether the governors of the Lincoln County Hospital are sufficiently impressed with the responsibility which rests upon them; at all events, they will feel the necessity of acting, and of giving weight to the advice of those who are the most competent to form an opinion on the important subject of the unwholesome situation of the hospital for the county of Lincoln.

## THE PROFESSION IN VICTORIA, AUSTRALIA.

IN another part of our number will be found a letter from a medical man who speaks with the authority of experience on the condition of the profession in Victoria. This letter should be read by all medical men who have any thought of emigrating, and by emigrants and colonists generally. According to our correspondent, in this particular colony the profession is overcrowded, and to a considerable extent demoralized. The demoralization may be a result of the overcrowding. When men have little to do, and are under the urgent necessity of doing something, it is quite intelligible that they should deteriorate in all ways. But our correspondent has the opinion that it is not so much true that men are demoralized by the colony itself, as that many men who have lost or sullied their reputation at home go out to the colonies. He testifies to the fact that there are excellent medical men in all the colonies, notwith-

standing the large admixture of a baser element. If there be any exaggeration in his statements, it will be exposed by other correspondents. Meantime we extremely regret that there should be so much show of truth in them. The remedy must lie chiefly with the residents themselves. Could it not be arranged that there should be a more distinct representation of the colonies in the Medical Council? This would secure the supervision of the profession in those distant parts, and the separation from it of men who forget at once their dignity and their duties.

## GOOD FRUITS.

WE print on pages 244-246 a comparative table showing one good result of THE LANCET Reports upon Metropolitan Workhouse Infirmaries—the increase of paid nurses in each house. It will be seen that very few have as yet any sufficient paid staff, but in a great number of cases where there were no trained nurses there is now a commencement of a supervision and the element of trained nursing is introduced. Our object in printing these figures is twofold—to show what has been done, and what remains to be done in this direction.

Dr. FARR has accepted the Presidency of the Health Section of the Social Science Congress to be held at Manchester in October next. The following, among other papers already announced, will form subjects for discussion:—"What means ought to be adopted to prevent the production of Smoke in Large Towns?" "How can the Pollution of Rivers, by the refuse and sewage of towns, be best prevented?" "What Legislative or other measures should be employed more effectually to prevent the Adulteration of Food?"

MR. ALDERMAN HARVEY, surgeon, and town councillor of Lincoln, has had his life threatened by some anonymous miscreant for some steps he has taken in the performance of his duties as a member of the Local Board of the city of Lincoln. The Board have offered £100 reward for the discovery of the offender.

THE *Peebleshire Advertiser* contains an interesting account of the visit of Sir Wm. Fergusson to his family seat at Spittlehaugh. The inhabitants of West Linton made quite a demonstration on the occasion. Flags, with appropriate mottoes, were hoisted on the principal houses of the village, at the railway station, and at Bromlee a floral arch spanned the street. A band of music played before the carriage of Sir William through the village; a balloon was sent up, and repeated firing of musketry "honoured the first baronet whom they could really claim as their own."

## DATA FOR THE HISTORY OF THE PRESENT EPIDEMIC OF CHOLERA IN LONDON.

THE information of medical practitioners gained in the hard battle against epidemic cholera has often been wasted for want of some systematic record of their observations under definite heads. Anxious to utilize, as quickly and effectively as possible, the hard-won experience of those members of our profession who are occupied in treating the cholera in the east of London, we have asked them to favour us with replies to questions intended especially to seek out the causes of the localization and propagation of the disease in this locality, and its relations to the sanitary condition of the districts, and other circumstances.

We have to express our warm thanks to these gentlemen for the valuable information afforded in their replies, and for the public spirit and earnestness with which they have aided us in this interesting inquiry. We commence this week the analysis of a number of the documents which have been forwarded to us.

In reply to the request for information on the following heads—

"B. Remarks as to the special localization of the cases;

"C. Any cases in which residents in particular blocks of houses or sides of streets have been attacked;

"D. Observations as to sanitary condition of localities affected, and of any differences between these and neighbouring houses or streets which have escaped;

"E. Sources of water-supply; house arrangements for ditto (tanks, butts, constant or intermittent supply, &c.),"—

Mr. LIDDLE, of Whitechapel, says: "Several inmates of the same house have been attacked in succession; and persons living opposite and to the right and left of the first house attacked have in many instances suffered. If power were given to local boards to purchase all houses which are so badly constructed that their sanitary condition cannot be improved, and to pull them down, great good would be effected. The expense should be defrayed by a metropolitan rate, and the open space thus obtained should be preserved. All London being benefited by the destruction of fever nests and cholera haunts, it ought to contribute equally towards the necessary expenses incurred by such a proceeding. If the local boards could hold a lien upon the property improved by them, the metropolis would soon present a different appearance as regards its sanitary condition. Local boards will not lay out money to improve property, because in almost every instance that they have done so they have not been able to recover the money expended."

Mr. FIRTH, Rotherhithe, says:—

(B) "The case of cholera, fatal, and the two cases of choleraic diarrhœa occurred in St. Mary's-buildings, Rotherhithe, all in the same family. This spot is densely populated by low Irish: cleanliness the exception, dirt the rule; in fact, a nidus for fever or any epidemic.

(C) "The streets most affected with diarrhœa, according to my note-book, are Adam-street, Clarence-street, and Swan-lane. These streets are tolerably open, and the houses of average description for the working classes.

(D) "There is no apparent difference in the sanitary condition of the above-named streets as compared with those in the immediate neighbourhood. The whole district is densely peopled, and I believe below high-water mark.

(E) "Intermittent supply; mostly, if not all, butts."

The Medical Officer of the Limehouse District Cholera Hospital, Wapping, says the water-supply is from the East London Waterworks. It is intermittent; none on Sundays; filthy water-butts; people do not keep them clean.

Mr. GILES, Poplar, says: "In Phœbe-street, Poplar, containing about thirty houses, nearly every house had a cholera case, and in the street many deaths occurred. The houses are old and ill-constructed, with deep underground kitchens. The water-supply bad; small stale tanks and old butts; water turned on about twenty minutes daily, except Sunday; pipes to tanks generally defective, so the water escapes; the tanks are always over the closets."

Dr. TRIPE, Medical Officer, Hackney, says:—

(B) "The last fatal cases have occurred in very poor houses, and especially where the inhabitants are filthy in their habits.

(C) "In Tingey's-buildings, Matthias-street, Bull's-buildings, and Melina-place, the first cases were imported from other districts. Orders to close Tingey's-buildings have been issued.

(D) "Most, but not all, have got into a bad sanitary state through the filthy habits of the inhabitants. Water-supply partly East London and partly New River. No perceptible influence of water-supply. Supply rather defective, but better now that a Sunday supply is granted, through a deputation from the Hackney Board."

Dr. D. SINCLAIR, Peckham, says, three cases which took place in Charles-street, and proved fatal, occurred in a house next door to where pigs were kept.

Mr. CHARLES DOWNES, Southwark, says: "47, White-street,

is a cat's-meat shop, and quantities of waste offal were stored for a time in a yard behind the house. Choleraic diarrhœa has been prevalent in the surrounding houses."

Mr. E. POPE, Medical Visitor, Centre District, Mile-end Old Town, says that cholera struck mostly where the water has been tainted and the drains imperfect. Sources of water-supply East London Waterworks; very irregular supplies, and much complaint in consequence. Butts &c. often rotten and foul.

Dr. F. BONNEY, Horsleydown, S.E., says that all the cases of diarrhœa that have come under his notice occurred in houses either badly drained or in close proximity to offensive factories. The sources of water-supply Southwark and Vauxhall Water Company. Butts and cisterns. Supply usually once daily, and not very plentiful. Water contains much lime, also infusorial animals and a little organic matter, probably sewage, as the water is drawn from Hampton.

D. WM. STORY, South Hackney, says, the cases under his observation in the week ending August 18th consisted of 13 attacks of cholera, with 5 deaths, and 20 cases of diarrhœa, which were localized in the only two spots where the sanitary conditions were bad. Here pigs were kept; drainage bad; the cisterns formed roof of waterclosets, and in two cases drainage abominable; closets fill up, and have to be emptied. Water-supply, East London Company.

Dr. MURDOCK, Rotherhithe, says there have been but few deaths in that district, but were scattered over the parish. Three deaths since the beginning of the epidemic have occurred in one house, in an Irish family of unclean habits. In the house above-named butt clean, but small; drainage good; intermittent water-supply; want of supply often complained of; from the Southwark and Vauxhall Company.

Mr. JOSIAH SARJANT, Isle of Dogs, says that the sanitary condition of the whole district is bad, being nine feet below high-water mark. Water-supply, East London Waterworks. Tanks and butts in filthy condition, mostly without covers, and tanks over closets; supply, half an hour each day, Sunday inclusive.

Mr. BENNINGTON, Commercial-road, says the water-supply is from the East London Waterworks; supply once a day; water seems now to be very good. Inferior class of houses. Small butts and tubs; lowest class only a pipe. People scramble for the water when turned on, those who are behind go without. The turncocks are masters of the situation, and are inexorable.

Mr. G. H. JARVIS, Kingsland-road, says cholera is localized in the same places as at the last outbreak. Amongst the poor one butt serves two houses generally in the poorest localities.

Mr. CUMMING, Limehouse, states that the cholera jumped about here and there—not in the dirty courts, as far as he could see. He considers that "it has nothing to do with places, filthy places being often quite untouched, and persons in decent houses seized in all degrees of life; the deaths apparently from neglecting the first stages." The water-butts are often very foul, but there is a constant supply in good houses. Water the same as usual, as far as he could see.

In reply to questions—

"F. Are the same localities affected in this as in previous cholera epidemics?

"G. Have the localities now attacked by cholera been previously unhealthy?

"H. Have recent sanitary improvements apparently saved any localities which were attacked in former epidemics?"—

Dr. O. WILLIAMS, Lower Clapton, believes the same localities are affected as before, as also new localities which did not then exist. They have not been previously unhealthy.

Dr. WM. STORY, South Hackney, says the locality had been free in former epidemics; the places now attacked had been previously unhealthy.

Dr. TRIPE, Medical Officer of Health for Hackney, says the localities now attacked are poor and densely crowded.

Dr. BONNEY, Horsleydown, finds the same localities affected as in previous epidemics, and not saved by recent sanitary improvements.

Dr. J. W. BAIN, Poplar, says the same localities are mostly attacked as before, but with one remarkable exception. "In one entire street, where, in the epidemic of 1849, forty-three persons died of cholera in a month, not one case has occurred. As this has never been published, I may mention it now. The street is Cold Harbour, at Blackwall, running parallel to the river. About one-third of the houses face the river, and were supplied in 1849 with filtered water from a barge coming out twice a week from the West India Docks; the remaining two-thirds, on the land side of the street, were supplied with water from a pump. Forty-one of the inhabitants of this side died, and only two on the other, and it is believed that they were in the habit of sending for the pump-water. *After the epidemic had ceased*, it was discovered that the sewer in the rear of these houses, originally made of wood, had become rotten, and leaked into the well. I myself attended most of these cases; but at that time my attention was not drawn to the water-supply, or its different distribution on the two sides of the street. The forty-one deaths occurred in about twenty-nine houses."

Dr. RENDLE, St. George's, Southwark, observes: "With about three exceptions, all the fatal cases are from our worst districts, which have yielded cases in all the former epidemics. They are those in which we find our fevers. I think, however, we have greatly benefited by recent sanitary improvements, so far as they have been carried out. We have in former epidemics been amongst the first and worst attacked in London."

Dr. BENINGTON, Commercial-road, says the same localities are affected as in the previous cholera epidemics: they have been previously unhealthy. He is not aware that recent sanitary improvements have saved any localities. Ratcliff, Harris-court, Beer-street, Gin-alley, the Ruins, and the Rents, are incapable of improvement, and ought to be demolished.

Dr. JOSIAH SARJANT, Isle of Dogs, answers questions F and G affirmatively, and H negatively.

Mr. LIDDLE, Whitechapel, reports that, owing to recent sanitary improvements, many localities which were most seriously attacked in the visitation of the cholera in 1849 have suffered much less severely this time. Such are, especially, Dunk-street, and some of the courts in Petticoat-lane. The localities now attacked by cholera have been previously unhealthy, and the parties living there are extremely poor and principally Irish. This is particularly the case in the courts leading out of Royal Mint-street.

Dr. MURDOCK, Rotherhithe, says: "The recent sanitary improvements have had a good effect—a most remarkable effect. Thus in 1849 cholera raged fearfully in a small district of Rotherhithe below the Surrey Dock-bridge, and swept off twenty persons in one street—Silver-street—containing only twenty-one or twenty-two houses; and forty in Charlotte-row and the adjoining part of Rotherhithe-street: in all, about forty-five houses (approximatively). Two hundred persons died in that particular neighbourhood (I mean between the Surrey Dock-bridge and the Commercial Docks), of which the population certainly does not exceed 3000 souls. It had then only superficial drainage, and was supplied with water from tidal wells, dug wells, and the river. This locality was at that time the most unhealthy in London. In 1854 the cholera came again. During the interval a sewer had been constructed and a supply of good water obtained from the Kent waterworks. The district above-named then became, and is now, one of the healthiest on the south side of the Thames. In 1854 there was very little disease there, and I only know of two deaths from epidemic cholera. These facts are well known to the inhabitants. In this epidemic, up to the present time, no death in Lower Rotherhithe has been registered. There was, however, last night a case under treatment on board a barge lying off Burt's wharf in Trinity-street."

Dr. D. SINCLAIR, of Peckham, says: "Three of the only cases of cholera which have proved fatal here occurred in a locality pointed out by me to the authorities four months before they occurred. There have been several cases of small-pox there, one or more of which proved fatal in the very houses which I had pointed out."

Dr. RICHARD TALBOT says: "Poplar New Town and the localities affected in my district were fields and gardens seven years ago; but the cholera has been localized here, in houses which are crowded and badly ventilated. I consider the water-supply generally insufficient; the tanks are far too small, and many, even in houses which let for £35, £40, and £45 per annum, only hold a few gallons; and these tanks, for the most part, are *in the waterclosets*."

Mr. GILES, East India-road, says: "The same localities are infected as in previous cholera epidemics. Those now attacked have been previously always unhealthy."

## PARTICULARS OF NURSES IN INFIRMARIES AT COMMENCEMENT OF "THE LANCET" INSPECTION (MAY, 1865).

## NUMBER OF *PAID* NURSES AT DATE OF OFFICIAL INSPECTION (MARCH, 1866.)

| WORKHOUSE INFIRMARIES. | Number of Persons Suffering under— | | | Number of Old and Infirm Males and Females in the Workhouse (exclusive of those in the Sick Wards on Jan. 28th, 1865), requiring the occasional Attendance of the Medical Officer. | Paid Nurses. | Are Paid Nurses employed in Sick Wards for | | Pauper Nurses. | ——— |
|---|---|---|---|---|---|---|---|---|---|
| | Fever and Zymotic Disorders. | Acute Disorders. | Chronic Disorders. | | | Males? | Females? | Ages. | |
| EAST LONDON ... ... ... | 6 | 62 | 52 | 145 | Sarah Gale | No | No | 65, 69, 72, 65, 54, 42, 60, 51, 76, 68. | 2 in charge of imbeciles, and 2 of general sick. |
| WEST LONDON ... ... ... | None | 25 | 62 | 151 | No paid nurses | No | No | From 45 to 60 | 1; 2 appointed, but not arrived. |
| ST. LUKE'S, Middlesex ... | 42 | ... | 33 | 30 | Louisa Mullucks | The one paid nurse superintends the whole. | | 34, 66, 68 | 1 for sick ward; 1 man for male lunatics; 1 woman for female lunatics. |
| ST. MARGARET AND ST. JOHN, Westminster | None | 30 | 215 | 146 | Sarah Shepperd, superintendent nurse. Elizabeth Stokes, promoted at Christmas, 1864, from a pauper nurse (since dead). Bridget Whitticase, infants' nurse. | Sarah Shepperd, superintendent nurse for the whole of the house. Eliz. Stokes (since dead) is nurse on the male side of the infirmary (4 wards). The other wards are attended by pauper nurses. | | 70, 70, 64, 76, 64, 74, 74, 50, 74, 49, 59 | 1 lying-in ward, 1 female infirmary, 1 male infirmary. Also 3 in the house at Kensington. |
| ST. MARTIN'S-IN-THE-FIELDS | None | 29 | 21 | 313 | Eliza Clarke | Only the head nurse | | 48, 55, 56, 56 | 1, and 2 others appointed. |
| POPLAR ... ... ... ... ... | 70 | 29 | 35 | 105 | Anne Ostliffe (infirmary only) | One female nurse at North-street Infirmary. | | Men—30, 61, 58, 43, 67, 56. Women—65, 46, 64, 62, 57, 70. | 1, and 1 at the North-street Infirmary. |
| ST. LEONARD'S, Shoreditch (Kingsland-road) | 136 | 12 | 76 | 175 | Mary Illsley | One paid nurse only is employed in the sick wards. | | From 28 to 64 | 12. |
| STRAND ... ... ... ... ... | 20 | None; all such cases are sent away | 52 | 144 | None | No | No | From 36 to 68 | 2 just appointed. Midwife not resident, who is paid 7s. 6d. per case. |
| STEPNEY ... ... ... ... ... | 314 | 6 | 80 | 153 | William Harris, Eliz. Sarah Ellis, Mary Ann Shergold. | Yes | Yes | From 18 to 77 | 5. |
| WHITECHAPEL ... ... ... | 196 | 36 | 16 | 295 | Hannah Brown, Grace Byrne. | Yes | Yes | From 17 to 65 | 1 head nurse administers medicines and gets stimulants; 1 female assistant occupied in attending persons entering and leaving; 1 female nurse for imbeciles; 1 male superintendent for male imbeciles. |
| BERMONDSEY ... ... ... ... | 35 | None | 3 | 126 | Maria Jane Scott. This paid officer is more of an assistant to the matron than a nurse. She superintends the work of the female able-bodied inmates, attends to the duties required to be performed on their admission, &c. | No | No | 45, 38, 27, 31, 52, 64, 62, 33, 21, 30, 33, 33, 65, 40, 39, 67, 62, 60, 57, 45, 45, 38. | 1, who also performs the duties of assistant-matron. |
| ST. GEORGE'S IN-THE-EAST... | ... | 72 | 61 | 69 | No paid nurses | No | No | 70, 40, 36, 60, 40, 34 40, 30, 47, 50, 60, 47. | 1 paid nurse in charge of female imbeciles. |
| ST. GEORGE'S, Hanover-square | 9 | 20 | 45 | 36 | Mary Ann Edwards. At present an additional paid nurse is employed in the lying-in ward. | One head nurse superintends the whole of the wards. | | From 30 to 60 | 2 paid nurses, who superintend the whole nursing; pauper nurse in each ward at 2s. per week; a helper at 1s.; and a night-nurse at 1s. and rations. At Brompton house 1 paid nurse appointed. |
| ST. GILES-IN-THE-FIELDS and ST. GEORGE'S, Bloomsbury | 33 | 23 | 34 | 115 | Elizabeth Elson | Only one paid nurse for both. | | 47, 57, 52, 54, 48, 39, & 55. 40, 40, 46, 57, 40, 28, & 40. 50, 61, 67, 60, 51, 55, 34, & 36. 51, 28, 54, 63, 56, 24, 46, 48. 64, 40, 30, 48, 45, 47, 60, 51. | 2 paid nurses, and 1 paid midwife, who attends external cases. |
| HACKNEY ... ... ... ... | "Cannot answer. All the entries (except about 12) in the Medical Relief Book are 'Debilitas' and it is made | | | 100 | Sarah Hitchcock | The same superintendent nurse for both. | | 68, 61, 80, 50, 47, 41, 18. 83, 49, 71, 57, 53, | 2 paid nurses, 1 just appointed; the head nurse is also practically the midwife, as the medical officer is frequently not there. |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| HACKNEY ... ... ... ... | "Cannot answer. All the entries (except about 12) in the Medical Relief Book are 'Debility,' and it is made up exclusively by the medical officer's assistant." | | | 100 | Sarah Hitchcock | The same superintendent nurse for both. | | 65, 61, 50, 50, 47, 41, 18. 52, 49, 71, 57, 53, 63, 35, 31, 65, 75, 32, 24, 66, 77, 53, 34. | 2 paid nurses, 1 just appointed; the head nurse is also practically the midwife, as the medical officer is frequently not there. |
| ST. JOHN, Hampstead ... ... | None | 4 | 42 | 50 | None | ... | ... | 75, 36, 63, 36 | 1 paid nurse from St. Thomas's Hospital appointed. |
| HOLBORN ... ... ... ... | 8 | 55 Some of these cases are in infirm wards. | 84 Nearly all persons suffering from chronic disorders are in the infirm wards, not in the sick wards. | 73 | None | No | No | 30, 57, 22, 27, 43, 30, 70, 66, 48, 67, 64, 23, & 46. 16, 42, 39, 55, 23, 32, 50, 41, 23, 28, 26. | 1 paid nurse, in charge of all the sick wards. |
| ST. MARY'S, Islington ... ... | None | 9 | 180 | 150 | None | No | No | 42, 66, 58, 42, 61, 66, 48, 47, 48, 44, 70, 49, 61, 48, 63. | All paupers, who receive three dresses, extra rations, beer, and 1s. per week. A midwife is employed at 7s. 6d. per case. |
| CROYDON ... ... ... ... ... | 3 | 12 | 54 | 103 | Sarah Hatton | Only one paid nurse for males and females. | | 62, 67, 26, 72, 34, 46, 71. | |
| ST. GEORGE'S, Southwark ... | 3 | 33 | 147 | 20 | None | No | No | From 40 to 65 | None at date of inspection; has just left; understood that another is to be appointed. |
| LAMBETH ... ... ... ... ... | 7 | 44 | 450 | 102 | Mary Anne Lilley<br>Elizabeth Clark<br>Male nurses only are employed in the male sick wards. Edwin James Elliott is the principal male nurse, and he also assists in surgery, and mixes the medicines. Henry Johnson is employed exclusively in the ward for cases of insanity, &c. &c. | Yes | Yes | ... | 3 paid nurses on female side, one of which is entirely for lunatics; the other two (one an under nurse) have charge of about 250 cases, including midwifery cases to the number of 180 to 200 yearly. The dispenser attends to nursing on male side, and states that he has more than he can do. |
| NEWINGTON ... ... ... ... | 2 | 10 | 74 | 177 | Sarah Mitchell fulfilled the duties of nurse for 5 years at the Hospital for Epileptics, 24, Queen-square. | 1 paid female nurse superintends the whole of the pauper nurses, and administers the medicines and stimulants. | | 69, 60, 46, 55, 47, 34, 41, 55. | 1 paid nurse; 1 male superintendent of male imbeciles. |
| ST. OLAVE'S, Southwark ... | None | 8 | 49 | 101 | No paid nurses | No | No | 73, 72, 70, 63, 57, 47, 33. | None. |
| RICHMOND ... ... ... ... | None | None | About one-third, principally old and decayed | 45 | None | No | No | 40, 43, 65, 64, 54, 64, 23, 51, 61. | |
| ROTHERHITHE ... ... ... | 2 | 3 | 33 | 50 | Martha Wood | ... | ... | 57, 57, 73, & 69. | 2 have been appointed. |
| ST. SAVIOUR'S, Southwark ... | None | 17 | 106 | 77 | Caroline Fitzhugh | Yes, 1 | Yes, 1 | 40, 54, 56, 57. | 1 paid nurse for detached infirmary; 2 assistants (paupers) at 1s. per week, clothes, and extra rations. Pauper nurse in lying-in ward at 2s. 6d per week and extras. |
| WANDSWORTH and CLAPHAM Union | 4 | 17 | 137 | 99 | Sarah Lucas, head nurse | No, with the exception of the head nurse, Mrs. Lucas, who superintends the wards for both sexes. | | On Jan. 23 there were probably 14 pauper male day- and 3 night-nurses; 14 female day- and 3 night-nurses. Selected from inmates between 30 and 60 years. | 2 paid nurses. |
| GREENWICH ... ... ... ... | None | 44 | 128 | 170 | None | No | No | to 76, 45 to 70 | 2 paid nurses just appointed, not entered on duties. 2 paid nurses in charge of female imbeciles; 1 in charge of imbeciles and idiots. |
| LEWISHAM ... ... ... ... | 2 | 16 | 69 | No record was kept of the number. | Mary Anne Bentley, superintendent nurse, and assistant matron | The superintendent nurse before named. | | 64, 35, 67, 52, 64, 45, 60, 55, 26, 64, 60, 50, 35 | |
| BETHNAL-GREEN ... ... ... | 13 | 68 | 412 | 400 | Mary Gannon, Mary Anne Eason. | Yes | Yes | Average, 55 | 2 female nurses in the infirmary; 1 for bedridden men; 1 for bedridden women. |
| ST. LUKE'S, Chelsea ... ... | None | 46 | 70 | 79 | None | No | ... | 64, 70, 60, 45, 65, 58, 57, 41 | 2. |

## PARTICULARS OF NURSES IN INFIRMARIES AT COMMENCEMENT OF "THE LANCET" INSPECTION (CONTINUED).

## NUMBER OF *PAID* NURSES AT DATE OF OFFICIAL INSPECTION (CONTINUED).

| — | Number of persons suffering under— | | | Number of Old and Infirm Males and Females in the Workhouse (exclusive of those in the Sick Wards on Jan. 28th, 1865), requiring the occasional Attendance of the Medical Officer. | Paid Nurses. | Are Paid Nurses employed in Sick Wards for— | | Pauper Nurses. | —— |
|---|---|---|---|---|---|---|---|---|---|
| | Fever and Zymotic Disorders. | Acute Disorders. | Chronic Disorders. | | | Males? | Females? | Ages. | |
| ST. JAMES, Clerkenwell ... | 5 | 115 | 26 | 217 | John Simpson, Sarah Ann Ward. | Only in the wards for weak-minded or insane patients. | | From 26 to 60 | 1 superintendent, £20; 1 man for male insane, £8 and two suits of clothes; 1 woman for female insane, £5 4s. and clothing. (Officers' rations.) |
| FULHAM ... ... ... ... ... | None | 18 | 10 | 176 | None. "The porter's wife is called nurse," but acts as female searcher | No | No | 54, 28, 40, 26, 42, | 1 paid nurse appointed, but not entered on duties; 2 paid nurses for imbeciles. |
| ST. JAMES, Westminster ... | None | 10 | 120 | 200 | None | No | No | Varying from 35 to 60 | 1 midwife, who also attends cases out of the house. |
| ST. MARY ABBOTTS, Kensington | Disorders of the zymotic class are generally removed to fever and small-pox hospitals, but owing to their crowded state a month since there were nine cases treated in the workhouse. | | | 145 | Margaret Bradford | One head nurse superintends both male and female wards in the infirmary. | | 76, 62, 50, 44, 40, 44 | 1 nurse, who also gives attention to the midwifery cases. Pauper nurses receive small allowances of money, from 1s. to 2s. 6d. per week. |
| CITY OF LONDON ... ... ... | 2 | 65 | 245 | 15 | Tryphena Goodenough, Eleanor Jones, Emma Watt. | One paid nurse for males and females in the infirmary, one paid nurse for bedridden men, and one paid nurse for bedridden women. | | 32, 36, 51, 52, 53, 56, 59, 58, 63, 64, 64, 64, 65, 60, 60, 70, 74. 46, 64, 74. 56, 65, 65, 68, 69. | 6. No paid night nurses. |
| ST. MARYLEBONE ... ... ... | 3 | 239 | 72 | 504 | Isabella Reece, head nurse, Mary Walsh, midwife, John Sadler, Ann Beadle, superin. nurse, Alice Swinburn, ditto, Mary Collins, Ann Marsh, Mary Greenland, Elizabeth Harrington, Ann Gibbins, Ann Bewsher, Eliz. M'Carthy, Mary Canary, Eliza Emary. | Yes | Yes | From 30 to 60 | 1 paid head nurse, and 16 paid under nurses. 2 night nurses have been elected. |
| MILE-END, Old-town ... ... | 10 | 8 | 30 | 100 | Grace Bivand, Susan Clark. | No | No | 42, 68, 61, 39, 41, 54, 69. | 5 paid nurses for the sick; 1 female in the infirmary; 1 male with the male imbeciles; 1 female for the female imbeciles; 2 nurses in the children's ward, at £6 per annum each. |
| PADDINGTON ... ... ... ... | 5 | 11 | 120 | 76 | Susan Eversden, Peter Fraser. | Yes | Yes | From 18 to 62 | 2 paid nurses, male and female; the latter attends to midwifery cases. |
| ST. PANCRAS ... ... ... ... | 2 | 76 | 155 | 746 | Harriet Reeve, superintendt., Caroline Berkeley, Sarah Parker, Susan Williams, Ellen Harding, Sarah Morrell, John Davy, superintendent, Eliza Davy, Elsey Rosina, superintendent, Mary Ann Napier, superin., Ann Waters, Diana Donelly, superintendt., Martha Gane, Mary Crook, Margaret Lane, Susan Sawson, midwife. | Yes | Yes | From 35 to 60 | In the infirmary: 1 superintendent nurse; 4 day nurses; 1 night nurse. Imbecile ward: 1 superintendent; 2 nurses. Aged and infirm ward: 1 superintendent for males; 1 superintendent for females; 1 day nurse, and 1 night nurse. Lunatics: 1 superintendent; 1 female nurse. A midwife; and a nurse in receiving ward. |

# BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

## MEETING AT NOTTINGHAM,
### AUGUST 22ND TO 30TH, 1866.

NOTTINGHAM has not been behind other towns in giving a hearty and honest welcome to the British Association, under the presidency of Mr. W. R. Grove, Q.C. That it was a large and good meeting the attendance at the various Sections fully proved. If a fault might be found, it was the great distance between many of the Sections. This was a circumstance, however, that could not be avoided; for it is next to impossible, unless in a university town, to have a number of large and convenient rooms immediately contiguous to one another. In not one other requisite has Nottingham failed, and the Association will gladly again consent to meet in the same place some years hence, when its turn comes round for selection. The *soirées* and lectures were a complete success, and there was enough and to spare of scientific material for all minds. We can only glance at that of immediate interest to the medical philosopher.

Dr. BENCE JONES presided over the Chemical Section, and in his opening address he dwelt particularly upon the education of chemists and druggists. All our druggists in England, he observed, ought to be what they are in Germany and in France—chemists capable of any analysis that might be required of them, and able to satisfy themselves and medical men that the substances they sell are what they profess to be—pure, unadulterated chemical compounds. He considered the present higher and lower education of those who studied medicine, the former of which he divided into three decennial periods: in the first ten years of life, reading, writing, and arithmetic were acquired; in the second ten years, Latin, Greek, some mathematics, and perhaps the modern languages; in the third ten years, physics, chemistry, botany, anatomy, physiology, and medicine. "Looking at the final result that is wanted—namely, the attainment of the power of employing the mechanical, chemical, electrical, and other forces of all things around us for increasing or diminishing the mechanical, chemical, and other actions taking place in the different textures of which our bodies are composed,—it is quite clear that the second decennial period is passed without our advancing one step towards the object required, and that in the third decennial period the amount to be learned is very far beyond what is possible to be attained in the time allowed." In the lower education, on the other hand, the speaker remarked that the first eighteen years were devoted to the ordinary elements, with enough Latin to write a prescription. In the next three years, physics, chemistry, botany, anatomy, physiology, and the practice of medicine, surgery, and midwifery, had all to be learned; and from this crowding it followed that the study of physiology was begun at the same time as the study of physics and chemistry. In other words, the superstructure and the foundation were commenced together; the top of the house might be almost finished when part of the foundation had not been laid. The objections to this system were carefully argued by the speaker, and the plan he proposed was, that in the first ten or twelve years of life a first-rate education in the most widely used modern language in the world—English,—with writing and arithmetic, might be acquired; in the next five or ten years a sound basis of knowledge of physics, chemistry, and botany, with German or French, should be obtained; and in the following five years, anatomy, physiology, medicine, surgery, and midwifery. He thought every medical man should be thoroughly well acquainted with his own language; his position and power would then be very different from that which he now obtained by learning some Latin and less Greek.

The subject of the teaching of Natural Science in public schools was taken up several times in the course of this meeting; and a very able paper upon it was brought before the Biological Section by the Rev. W. W. FARRAR, of Harrow. There was much discussion upon it, and whilst all agreed in its importance, there was much difference of opinion as to the best means of carrying it out. Lord AMBERLEY thought that if the hours given to Latin verse making could be applied to science, the difficulty as to time would be surmounted. Dr. HOOKER looked on scientific lectures to boys as mischievous; in them the study of chemistry was premature. He recommended a systematic study of botany and zoology to draw out their powers of observation.

Mr. CLEMENTS R. MARKHAM read a paper "On the results of the Cinchona Cultivation in India," from which it appears that the bark of this well-known medicinal plant has been successfully introduced into that country. Dr. HOOKER said the author had laid humanity, and India in particular, under increased obligations by forwarding the plants from America to India.

Papers were read upon the following subjects:—"Food and Economical Value of British Butterflies and Moths;" and "On the Causes of the Variations in the Eggs of British Birds," by Mr. GROOM NAPIER. In the first paper the author reviewed the different classes of moths and butterflies, and mentioned the species most injurious to valuable plants and stores, as well as those which were beneficial. In the second paper the author stated that the extent of the variation in birds' eggs was greater than in other portions of animals of species held to be different, so that it is often difficult, on the ground of mere appearances, to give them correct assignation. Mr. Napier thought the tendency of the eggs of one species to resemble those of another worthy of the attention of the advocates of the theory of natural selection. He gave a variety of facts, observed in wild birds, to prove the influence of age on the size, number, and markings of eggs, and on the sex of offspring. Speaking of domestic fowls, he remarked that the size of the eggs was greatly influenced by that of the cock, and that the same hen, by association with males of different breeds, would lay eggs greatly differing in size.

A kindred subject by Dr. JOHN DAVY was, "Is the Carbonate of Lime in the Egg-shells of Birds in a Crystalline or Amorphous State?"

A paper "On the Conditions of the Protoplasmic Movements in the Eggs of Osseous Fishes," by Dr. RANSOM, possessed much interest. By means of diagrams he exhibited the phenomena of rotations or osculations of the impregnated and unimpregnated eggs, and the influence of various chemical agents upon them: carbonic acid produced the most remarkable changes, and oxygen exerted a great effect upon them, although small in its quantity. The PRESIDENT considered the paper as a proof of hardworking research, which distinguished the English as well as the German school. A discussion ensued, in which Mr. Frank Buckland, Dr. Hughes Bennett (of Edinburgh), Dr. Edward Smith, Dr. Davy, and others took part.

"The Colour of Man" was considered in a paper by Dr. JOHN DAVY, who enumerated the various shades of complexion and the positions in which they are found, and then entered into the subject of causation. The warmer the climate, the less the difference in the venous and arterial blood. The colour of the Chinese might be due to the imperfect development of blood in the bile. The hereditary colour might pass, in course of time, into that distinctive of the climate. Of this he gave a variety of instances. Dr. BENNETT (in the chair) thought the discussion on the cause of colour in the skin was one which affected the fairer portion of the audience.

Papers were read by Mr. WM. TURNER, "On a remarkable Mode of Gestation in an undescribed Species of Arius;" by Dr. SHARP, "On the Physiological Action of Medicines;" by Dr. COBBOLD, "On the so-called Cattle-Plague Entozoa;" by Dr. STEVENSON MACADAM, "On the Poisonous Nature of Crude Paraffin Oil, and the Effects of the Products of its Rectification upon Fish." In the latter paper the author showed that the deleterious nature of the discharges from paraffin factories has manifested itself already in the total destruction of all fish in more than one of our Scottish streams.

A long paper was read by Prof. HITCHCOCK, "On the Geological Distribution of Petroleum in North America," in which he showed that the supply of this substance, so important to all classes of the community, must be inexhaustible.

Mr. CARTER BLAKE read a paper "On a supposed Human Jaw from the Belgian Bone Caves." The history of its discovery, through excavations made by authority in Belgium, was given. It presented in many points an exaggeration of the characters of the lowest Australian jaws. In some respects it differed widely from the jaws known to anatomists, and bore a great resemblance to the jaw of the young orang. In summing up, the belief was expressed that the bone was of vast though unascertained antiquity, and that on the whole it more closely resembled the jaw of the Sclavonic than that of any other

race, while in some points it presented an analogy to and exaggeration of the Australian.—In the general discussion which followed, the PRESIDENT (Mr. Wallace) remarked that the bone was interesting, irrespective of its antiquity; for if a race having this peculiar formation were found to exist now, it would be just as much a link between man and the larger apes as if it existed many thousand years ago. Dr. DAVIS suggested that the bone might be a diseased one, but it had no characters indicating morbid action. The Rev. DUNBAR HEATH remarked that Belgium was in ancient times inhabited by a Tartar race, but it seemed that at a vastly more remote period there were inhabitants of an ape-like character. He could only account for this on the theory of development.

A paper more or less correlative to the foregoing was read by Dr. JAMES HUNT, "On the Principle of Natural Selection applied to Anthropology, in reply to Views propounded by some of Mr. Darwin's disciples," in which he adduced the opinions of some of the most celebrated men of the present and past times who were in favour of plurality in the creation of man. As is probably well known, Mr. Darwin, and his most prominent disciple, Professor Huxley, on the other hand, strongly maintain the unity of the human race.

In the Chemical Section, Dr. DAUBENY "On Ozone," Dr. CRACE CALVERT "On the Oxidizing Action of Carbon," and Mr. W. CROOKES "On Disinfectants," introduced these subjects respectively in good papers. The last was certainly the most important. The author showed the absurdity of using at the same time, in the various parishes of London, disinfectants that were incompatible with one another, for when the streams of sewage meet from the different districts, the several agents exert reciprocally an antagonistic action, thus expending their energies in mutual destruction instead of uniting them in serviceable work. Oxidizing disinfectants produce their effect by the actual destruction of the infectant substance. Antiseptics act by destroying its activity. Of all antiseptics those known as the tar acids are the most powerful, and of these, commercial carbolic acid is the best. In the presence of carbolic acid the development of embryonic life is well-nigh impossible, and before its powerful influence all minute forms of animal existence inevitably perish. An interesting discussion followed, in which Mr. Grove, the President of the Association, took part.

Dr. COBBOLD read a paper "On the Entozoa of the Dog in relation to Public Health," and gave a full account of the parasites to which the dog is subject, stating in the course of his paper that, in eating trichinous pork, about ten millions of these creatures would not do a man serious harm, fifteen millions would make him feel very uncomfortable, and twenty millions would probably destroy life.

Of subjects more or less medically interesting upon which papers were read may be mentioned "A Report of the Lunar Committee for Mapping the Surface of the Moon," by W. R. BIRT; "On the Heat attained by the Moon under Solar Radiation," by Mr. PARK HARRISON; "Cæsar's account of Britain and its Inhabitants," by Mr. J. CRAWFORD; "On the Physical Geography, Climate, and Tribes of Natal," by Dr. MANN; "On Classification of the various Occupations of the People," by Mr. FREDK. J. WILSON; "On the Sources of the Fat of the Animal Body," by Messrs. GILBERT and LAWES; and "On the Statistics of the General Hospital near Nottingham," by Mr. JOSEPH WHITE.

Dr. G. D. GIBB read a paper, "On Variations in the Great Arterial Bloodvessels" in two instances which came under his observation. In one the aorta gave off four branches instead of three, the innominata being absent, and the right carotid and subclavian arising by distinct and separate trunks in its place; in this instance there were peculiarities in both femorals, and in the laryngeal branch of the superior thyroid, which perforated the thyroid cartilage on the left side. The other instance was unique: the aorta divided into two great branches; the first gave off the innominata and the left carotid, which crossed the trachea to go to the left side; whilst the second great trunk divided into the left subclavian and descending aorta. These were illustrated by diagrams, and two of Mr. Quain's large plates for comparison. Professor HUXLEY remarked that the subject was one of interest, but he did not think these variations constituted any link between ourselves and the lower animals, as they frequently occurred in the latter. Mr. W. TURNER offered an explanation of their occurrence in the early process of development, and said the two sides of the body were not always symmetrical as is supposed.

Dr. B. W. RICHARDSON read a report "On Amyle." This was his third report on the subject, and it embodies a comparison between some of the compounds of ethyle and those of amyle. Amongst other experiments he related those of injecting nitrite of amyle into the bloodvessels to recall the action of the heart after it had ceased to beat, from drowning or suffocation, but the results thus far were negative. He next explained that the extreme stimulation and action of the heart which follows on the inhalation of nitrite of amyle is brought about by the direct action upon the heart through the nervous system. The third point dwelt upon had reference to the antiseptic properties of the amyle compounds. The fourth related to the physiological action of pure ether, acetic ether, hydrofluoric ether, and nitrite of amyle. The inferences were strongly in favour of pure ether, as a means of destroying pain generally, over chloroform and all other similar bodies. He reported that the nitrite of ethyle, like nitrite of amyle, was one of the most powerful excitants upon the heart. It also suspended the animation of cold-blooded, and to a certain extent of warm-blooded, animals. The report ended with the following conclusions:—1. That the oxide of ethyle, when used as a pure chemical, is the safest and most effective general means of producing insensibility to pain. 2. That amylene and ether produce their effects by virtue of two acts: by suppressing oxidation of blood in the lungs, and by the extraction of caloric from the blood. This latter point was advanced as a new and more simple explanation of the action of the substances named than had been before suggested. 3. That the modification of symptoms produced by the change of form of a simple amyle or ethyle compound into a nitrite, turned on the introduction of nitrogen into the composition; by this introduction the anæsthetic action is destroyed, and is replaced by disturbance of muscular action, especially of the heart. In this respect the nitrite compounds represent immediately in an exaggerated degree the action of strychnine, theine, nicotine, and analogous alkaloidal substances, of which nitrogen forms an elementary constituent.

Dr. BENCE JONES read a highly important paper "On the Chemical Action of Medicines," of which the following is a bare synopsis:—Assuming the truth of the law of conservation of energy, it follows that no creation or annihilation of fever by food, medicine, or exercise can take place, and from this it also follows that the two great actions of remedies are, first to increase the liberation of force in the body, and second, to increase the resistance to that force within. Omitting other actions now for the sake of clearness, it may be said that the great functions of medicines are to affect quantitatively or qualitatively the oxidation and nutrition which continually takes place in each of the different textures of the body. Oxidation and nutrition are affected by medicines in at least two ways. First, directly, by the passage of the medicines into the different textures of which the body is composed. Secondly, indirectly, by the action of the medicines on the nerves that regulate the circulation, whereby the flow of blood through the vessels is increased or diminished. Although oxidation and nutrition in the body are dependent one upon the other, and though they cannot be separated in action, yet, for clearness, medicines may be divided into—first, those that promote or retard oxidation; second, those that promote or retard nutrition. The various agents coming under these two divisions were given. Not only in medicine but in surgery the same two principal indications for treatment are always present. The surgeon regulates quantitatively or qualitatively chiefly by mechanical means the oxidation and the repair of the body. Thus in croup he promotes it by opening the trachea. The progress of all accurate knowledge of the actions of medicines depends now on exact chemical and physical experiments, and by these alone will the practice of medicine lose its doubts, its difficulties, and disagreements. Referring to Prof. Huxley's recent address on Medical Education at St. Mary's Hospital Medical School, he said that instead of being, as formerly, blind wielders of heavy clubs, that cured the disease or killed the patient; or instead of being, as at present, "judicious" or injudicious "bottle-holders" in the fight between disease and health, physicians will at some future time estimate more or less exactly the effect of the increased or diminished action of any one force upon all the other forces concerned in the production of general or local disease; and by adding to the resistance of the action of one or more forces, or by liberating more energy by means of the powers that are latent in food and medicine, they will restore that equilibrium of action in the body upon which our health depends.

Sir JAMES ALEXANDER read a paper "On the Effects of the Pollution of Rivers." He pointed out how paper and other manufacturers on the banks of rivers were gradually destroying all life in the water, and making the rivers offensive and dangerous to live near. Unless something were done promptly,

the rivers would soon become open sewers. He spoke at particular length of particular Scottish rivers, giving instances of pollution, and cases where, by some trouble and expense, manufacturers had been able to avoid pollution. He considered a River Pollution Act was imperatively required, and he hoped the influence of the Association would be used to bring about a consummation so much desired. Professor BENNETT, of Edinburgh, said the question was concerned, first, with the health of man; next, with the health of fishes; and finally, with agriculture. He believed it was a mistake to suppose that offensive odours were necessarily injurious to health. The destruction of fish was a most serious economical question. We were exporting ova to Australia to stock the rivers there, and yet we stood before the world as a nation destroying the fish in our own rivers, and thus depriving the people of an important article of food. Several other gentlemen took part in the discussion.

Dr. SIBSON gave an interesting account of his researches "On the Movement, Structure, and Sounds of the Heart," which was illustrated by a series of beautiful coloured diagrams, showing the various parts of the heart, with their structure and uses. This was one of the most popular communications brought before the Physiological Department of Section D, which was crowded, and a vote of thanks was passed to the author.

A paper from Dr. SHORTT, Superintendent of Vaccination at Madras, was read "On the Habits and Manners of the Marvar Tribes of India," in which the dress and mode of piercing the ear-lobes among the women, and the ceremony of installing the present Rannee in the Zemindary were especially dwelt upon.

Dr. DAUBENY read a statistical paper showing the number of graduates in Arts and Medicine in the University of Oxford for the last two centuries, and urging that it was necessary that persons intended for the medical profession should have an education as liberal as those who were to have the cure of souls. He also alluded to the discussion which had taken place as to an extension of the university, for it was felt that, unless something was done, the persons who would be likely to occupy the position of curates must be taken from the ranks of those who had not had a university education. A most animated discussion ensued, which we regret we cannot give.

A paper from Dr. BEDDOE was read, "On the Stature and Bulk of the Irish, and on the Degeneration of the Race." His observations were founded upon the recruiting statistics of the United Kingdom, which, on analysis since 1864, when the standard was lowered to 5 ft. 5 in., gave an average weight of 138 lbs. in 1517 persons, and a height of 5 ft. 7 in.; the average girth of the chest was 34 in. The Scotch recruits were about equal to those of Leinster and Munster in stature and weight, and exceeded in girth of chest both the English and Irish, though the Welsh might equal them in that point. The Welsh recruits weighed heaviest, but their stature was considerably lower than that of the Irish. The English varied very much, but on the whole they did not quite equal even the Welsh in stature or the Irish in weight, which seemed mainly due to the low average of the recruits from the metropolis and the manufacturing districts.

Professor HUXLEY exhibited two Human Skulls, showing the most extreme forms, in certain respects, that had ever come under his notice. One was that of an adult Tartar, from the museum of the London College of Surgeons, and was exceedingly remarkable for extreme breadth and roundness, the breadth being as much as 977-1000ths of the length. The jaws were broad, did not project, and were nearly straight; the palate was short and broad, and the suture between the two parietal bones was obliterated, the others being open. The second skull was said to have come from New Zealand, but of this he was doubtful, as it deviated from the Australian type in some respects. It was the narrowest skull in proportion to its breadth that he had seen recorded, the breadth being only 629-1000ths compared with its length. The first was arched and dome-like, and the contour was almost semicircular; while the second had compressed and wall-like sides, and was ridged like the roof of a house. The occiput of the second was exceedingly flattened, the jaws projected very far, and the palate was very long and broad. Though so unlike in these respects, there were fundamental particulars in which they entirely agreed. The length of the basicranial axis was nearly the same, so that the length of the axis of the skull had no necessary relation to its absolute or relative breadth. In the discussion, Mr. TURNER said he had two skulls, one a Bohemian and the other from Lincolnshire, which in many respects resembled those now exhibited. Mr. CARTER BLAKE expressed an opinion that artificial compression had caused the extreme narrowness of the New Zealand skull; and Dr. B. DAVIS offered a similar suggestion with regard to the other skull. Professor HUXLEY, in reply, stated his reasons for rejecting this explanation.

At a previous meeting a paper of much interest was read by Mr. CARTER BLAKE, on "Skulls obtained from round Barrows in Dorsetshire." A kindred subject was also brought forward by Dr. JAMES HUNT: "On the Cranial Measurements, Colour of Hair and Eyes, &c., of Modern Norwegians; the result of observations made in ninety-eight cases." The cranial measurements in the majority of the cases indicated that the form of the skull in the Norwegians is much rounder than has been hitherto supposed. The average height of seventy-eight cases of males was five feet eight inches. The hair in the majority of cases was light-brown, and the eyes light-blue. The author contended that there was no such thing as a Norse tribe, the races inhabiting that country differing quite as much if not more than those inhabiting this country.

A paper that attracted some interest was, "On the occurrence of Felis Lynx as a British Fossil," by Dr. W. H. RANSOM of Nottingham, a gentleman who contributed several valuable and elaborate communications during the meeting. The bones were found in one of the caverns in the Permian rocks, known as the Yew-tree Cave, on the borders of Nottinghamshire; and on the jaw being placed in Prof. Owen's hands he pronounced it to be that of Felis lynx (a North Asiatic animal)—a fossil new to Britain. The bones of dogs, wolves, foxes, ruminants, pigs, and other animals, were also found.—In the discussion, Professor PHILLIPS, of Oxford, remarked that the paper made a positive addition to the list of pleistocene fossils. But the point of interest was not merely the discovery of a new animal: it had a close bearing on the great question of the distribution of temperature. All the evidence, he thought, pointed to the necessity for admitting that the power of range possessed by quadrupeds was larger than had been supposed. Professor RAMSAY (President of the Section) said the bone produced looked comparatively fresh. It did not seem to be of greater age than some bones of the wolf which had been found, which animal they knew lived down to modern times. This lynx therefore might possibly have existed at a recent period, and have seen man. Many other persons spoke on the subject.

A paper by Dr. FOSTER, of Hull, was read by Mr. JAMES OLDHAM, "On the Discovery of Ancient Trees below the surface of the land, at the Western Dock now being constructed at Hull." At a depth of forty feet, trees, mostly oak, were met with in all positions, and are still *in situ*, having been broken off within three feet of the root. Some were of gigantic size. These trees could not be less than three thousand years old.—The PRESIDENT remarked that the trees found were portions, no doubt, of a submerged forest.

The well-known Dr. PAUL BROCA read a paper "On the Anthropology of Lower Brittany," in which he contended that there were two races in France: one tall, the other short; the line of separation corresponding to that which, in the time of Cæsar, divided Celtic from Belgic Gaul. The inhabitants of the cantons of the latter were short in stature, and of a type corresponding to the Cornish. Mr. EVANS believed that the two tallest nations in France were thus descended from the old pirates; and that living over the sea had much to do with height. Professor HUXLEY, on the other hand, contended that length of limb and height were not adapted to a seafaring life; and that light, lithe, active people made the best sailors.

Our space will permit us only to notice the following subjects of more or less general interest:—"The Accumulation of the Nitrogen of Manure in the Soil," by Messrs. LAWES and GILBERT; "A new Molluscoid Animal," by Dr. W. M'INTOSH; "Reversed Sexual Characters in a Butterfly, and deductions therefrom," by Mr. A. R. WALLACE; "Some points in the Structure of Limulus, King Crab, recent and fossil," by Mr. H. WOODWARD; "On the Structure and Growth of the Ovarian Ovum in the Gasterosteus Leiurus," by Dr. RANSOM; "On the Action of Carbonic Oxide on Blood," by Dr. GAMGEE; "To draw attention to the present condition of our knowledge on the Origin of Muscular Force in Animals," by Dr. LYON PLAYFAIR; "On the Purification of Terrestrial Drinking Waters by Neutral Sulphate of Alumina," by Mr. A. BIRD; "On the scientific Cultivation of a Salmon River," by Mr. F. BUCKLAND; "On Muscular Irritability, and the Relations which exist between Muscle, Nerve, and Blood," by Dr. NORRIS; and "On a peculiar Change of Colour in a Mulatto," by Dr. FOSTER.

The concluding general meeting took place at three P.M. on

Wednesday, Aug. 29th, when it was announced that the next meeting of the Association would take place at Dundee, under the presidency of the Duke of Buccleuch.

## CONSTANT WATER-SUPPLY.

A MEETING of representatives of the London parishes took place at Islington on the 16th of August; W. Harvey, Esq., in the chair.

The chairman urged the great question of constant water-supply from pure sources. He believed it to be perfectly practicable, and only required sufficient pressure, which might be obtained by united action. The answers from the various water companies were read; but with an exception or two, although somewhat promising and obliging, they were pronounced by most of the speakers to be very unsatisfactory.

Different speakers, among whom were Mr. Rose (of Mile-end), Mr. Cuffin (Islington), Mr. Rendle and Mr. Sandell (St. George, Southwark), Messrs. Suffield and Darnell (Bermondsey), and Sir Edward Perrott, Bart. (Plumstead), addressed the meeting. The general tone was in complete condemnation of any supply involving butts and cisterns, especially in poorer localities, where it was pronounced impossible to preserve water in a wholesome condition; that waste would be less under the constant than under the intermittent system; that water from underground pipes, not previously exposed to air, was fresh, cool, and clear; that such a supply did not necessarily involve expensive apparatus; that it might, perhaps, need some punitive powers in connexion with wilful waste. But the feeling was, from instances cited, that even the poorest show increased care in connexion with the constant supply, now in some cases afforded; that with water always at hand they are found to keep their waterclosets clean without closet-cisterns, which, as at present formed, are not only insufficient and generally unsuitable, but are, from the direct waste-pipe communication from closet to butt or cistern, fitted for a direct drainage-taint to the water; that it was impossible for the poor, with their very limited and tainted supply, to be either healthy or clean.

The meeting was very influential, and quite unanimous. It was resolved, and carried unanimously,—

"1. To again urge the companies to supply generally and immediately water on Sundays.

"2. To request the water companies each to send a representative or representatives to meet the representatives of the London vestries and district boards on the 4th of October next.

"3. That no water-supply will be fit for the metropolis unless the sources of the supply are free from impurities."

Some remarks were made, in connexion with the third resolution, upon the abominations of the upper Thames, whence the London supply is chiefly taken; and some further observations that the supply of such a first necessary of life as water should not be in the hands of private companies, but of municipalities acting without profit for, and responsible to, ratepayers, found some considerable favour.

# Correspondence.

"Audi alteram partem."

## DR. GREENHALGH'S CASE OF CÆSAREAN OPERATION.

[LETTER FROM DR. HALL.]

*To the Editor of* THE LANCET.

SIR,—The favourable symptoms reported in THE LANCET as present on Aug. 21st continued the following day, and in addition the breasts began to swell with secretion of milk, which could be expressed from the nipples. The many-tailed bandage was cautiously undone, and the strapping replaced with fresh plaster. The external incision looked most satisfactory, the edges only slightly red or inflamed, and no pain in the part was complained of. It was determined, therefore, to postpone the removal of the sutures until the following day (the fifth from the operation). On my arrival I was distressed to notice a marked change for the worse in the countenance of the patient; and the pulse, which the previous day was about 100, had now risen to 140, or even more—indeed it was so rapid that one of the medical gentlemen present declared he could not count it. The breasts had become flaccid, and the patient's thirst was intense. The sutures on removal were quite dry; and the edges of the wound, though in apposition, were destitute of moisture. Fresh strapping was applied, and the abdominal bandage carefully adjusted; but the abdomen was much distended by flatus, which seemed to occasion her considerable pain at intervals. It was evident that from some source pyæmia had set up, and the patient's condition was considered highly critical. In the evening and during the night Dr. Fuller, who was most assiduous in his attendance on the case, administered alcoholic stimulants freely; but the stomach rejected everything, and, after a violent discharge of stercoraceous-looking fluid from the stomach, the poor woman suddenly expired at one P.M. of Friday (the sixth day after the operation).

A post-mortem examination was made twenty-six hours after death. This was kindly done by Dr. Dawson, in the presence of Dr. Greenhalgh, Mr. Jardine Murray, Mr. Philpott, Dr. Fuller of Shoreham, and myself. On removing the bandage and strapping from the belly, the wound in the integuments immediately opened widely, its edges looking dark-coloured, having lost all signs of adhesive inflammation; and the incision in the uterus was gaping and flaccid, but the organ itself was contracted as after normal delivery. The intestines were greatly distended with gases and fluid feculent matter, but neither their surface nor the peritoneal membrane anywhere exhibited signs of inflammatory action. The intestines being removed to enable us to obtain a full view of the pelvis, the tumour which had determined the necessity of the Cæsarean section came into view. It sprang from the lower portion of the sacral hollow, completely surrounding the rectum and blocking up the pelvic outlet, its anterior surface being within half an inch of the symphysis pubis. It was about the size of the two adult fists, and of a dense gristly nature, resembling true scirrhus. It was very firmly adherent to the sacral bone adjoining the coccyx. The sphincter ani was completely destroyed, and a rugged channel about half an inch in diameter passed through the centre of the mass into the healthy portion of the rectum above: this channel was about six inches long. The liver was enlarged, and in the early stage of cirrhosis; and both kidneys were large and flabby, with signs of early Bright's disease. The spleen was healthy. The muscular integuments of the thorax had patches of extravasated blood in them. The heart was flabby, and its muscular tissue paler than ordinary. A clot of blood was found in the right auricle; and a long, pale, tough, fibrous clot, attached to the tricuspid valve, extended into the pulmonary artery about an inch. The left lung was adherent throughout to the pleural surfaces, evidently of long standing; and was intensely congested, but not hepatised. The right lung was much less congested, and its surface was non-adherent.

The child seven days after its birth was thriving most satisfactorily.

I am, Sir, yours &c.,

ALFRED HALL, M.D.,

Old Steyne, Aug. 29th, 1866. Physician to the Brighton Dispensary, &c.

## UTERINE IRRITATION.

*To the Editor of* THE LANCET.

SIR,—In your last week's report of Dr. Anstie's comprehensive lectures on the Pathology of the Fifth Nerve there occurs one passage to which I venture to take exception:—

"As we are on the subject of diagnosis," says Dr. Anstie, "it may be well to observe that nothing can be more objectionable than that kind of logic which, for instance, when a course of medication with some drug, already ticketed 'emmenagogue,' has simultaneously established menstruation and relieved a neuralgic pain, would therefore decide that the neuralgia had depended on 'uterine irritation.'"

Startled by such a suggestion, I have searched for some authentication of a method of practice so entirely opposed to my own views. It happens that there fall under my care a large number of cases of headache and of uterine disorder; but I have not met with, nor can I find in books, any illustrations of the plan of treatment above mentioned,—the giving a drug already ticketed, and forming a diagnosis from the results following on its administration. Uterine irritation, by which I understand Dr. Anstie to refer to the "irritable uterus" of Gooch, has nothing whatever to do with amenorrhœa; and it has never been advised that it

should be treated by emmenagogues by anyone acquainted with uterine pathology—certainly not in the works of Gooch, Ferguson, Davis, West, Churchill, Smith, or Graily Hewitt. It is far more rare now than when Gooch described its characters, and is by no means the uterine disorder most frequently associated with severe headaches.

I conceive that the sentence above cited requires some comment, since very serious harm may ensue from such broadcast condemnations. The quacks quote them; the homœopaths gloat over them. Every word of intra-professional disparagement is an addition to their stock-in-trade; and now that so many of their runs are happily stopped, it is surely injudicious to afford new vantage ground. Of course we all occasionally err; and the wisest men are those most ready to allow their own failures and to acknowledge errors which have been only truth in the making. But I hold it to be equally unnecessary and injudicious, when there is so much work waiting to be done, to employ time and print in the confession of other people's sins and the acknowledgment of other folk's transgressions, unless the advantage be very obvious and the evidence very precise.—I remain, Sir, yours obediently,

Somerset-street, Aug. 29th, 1866. H. G. WRIGHT.

## VACCINATION.

*To the Editor of* THE LANCET.

SIR,—In a late number it is stated that a Vaccination Bill must fall through if the registration clauses are not retained. The real fact is that no Vaccination Bill will pass in which these clauses *are* retained.

The registration clauses can only be carried out under a *system* of penalties, which is always repulsive and generally inoperative. As a registrar, I have written up seventy-two volumes, containing five hundred entries in each, and have been applied to in only one solitary instance for a certificate, the entry even in that case being incomplete.

The only apparent advantage of the registration book is that the registrar can thereby bear testimony to the delivery of the notice. As these books are not written up as a matter of course immediately on the delivery of the notice, I contend that a simple tick affixed to the entry in the *birth book* at the time of the delivery of the notice, would be more effective and quite as certain as the entry in the *vaccination book*.

I am, Sir, your obedient servant,

August 17th, 1866. W. H. BUTTERFIELD.

P.S.—The best certificate of vaccination, to an ordinary mind, consists in well-defined marks on the arm.

## ABSENCE OF RIGHT KIDNEY.

*To the Editor of* THE LANCET.

SIR,—On Monday last, on examining after death the body of a man who had died of typhus fever, on the fifteenth day of his illness, I found an entire absence of the right kidney. The right supra-renal capsule was there, of natural size and aspect. There was no trace of right renal artery, of right renal vein, or of right ureter, the aorta and vena cava and bladder having been carefully scrutinised. The left kidney was healthy, but of large size, and weighed seven ounces and a half avoirdupois. As in the course of a long practice, during which I have made over six hundred post-mortem examinations, I have never met with a similar case, I thought it worth reporting to you.

Faithfully yours,

Ross, Herefordshire, Aug. 25th, 1866. W. SYMONDS ROOTES.

## LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

AN error of the printer's in my last letter requires correction. The two columns of deaths from cholera and diarrhœa there given were misplaced. The deaths from diarrhœa were put under the head of cholera, and those from cholera under the head of diarrhœa.

The returns just made up show the first evidences of a subsidence of cholera in this town. There is a decrease of 11 deaths for the week ending August 25th, as compared with the preceding week. The number of deaths from the commencement of the epidemic are restated below, so as to remove the erroneous impression left by last week's misprint, with the addition of last week's numbers:—

| | Diarrhœa. | Cholera. |
|---|---|---|
| July 7th ... ... ... ... | 31 ... ... | 4 |
| ,, 14th... ... ... ... | 53 ... ... | 19 |
| ,, 21st... ... ... ... | 59 ... ... | 45 |
| ,, 28th... ... ... ... | 66 ... ... | 87 |
| Aug. 4th ... ... ... ... | 88 ... ... | 101 |
| ,, 11th... ... ... ... | 75 ... ... | 126 |
| ,, 18th... ... ... ... | 63 ... ... | 157 |
| ,, 25th... ... ... ... | 69 ... ... | 146 |

At the cholera sheds in Ashfield-street, during the week ending August 27th, there were 74 admissions, 43 deaths, and 31 discharged cured. The Bishop of Chester visited these sheds twice during the week, and expressed himself greatly pleased with the arrangements.

In the town, during the past week, 88 persons have died at their own homes of cholera. Only 19 out of the 146 occurred in the out-townships, the remainder happening in the parish in the same infected districts as at first, or in their immediate vicinity.

The report of the sub-committee on the causes of Liverpool's great mortality was presented to the Health Committee last Thursday. They had held sixteen meetings, and during the course of them had examined twenty-one witnesses, amongst whom were the medical officer of health, the borough engineer, Drs. Cameron, Gee, Steele, and others, besides clergymen, relieving officers, and house agents. The evidence so collected has been printed *in extenso*. That of Dr. Trench you alluded to in your leading article, August 4th. The evidence of the Rev. Father Nugent and of some of the house agents is striking and suggestive, as also is that of one of the witnesses, who gave the result of his inquiries on the subject of wages. This witness had ascertained the maximum and minimum wages of almost every class of labour in the town, both skilled and unskilled, and certainly his evidence tends to prove that there are great numbers of people, heads of families, whose average wage is much less than that quoted in your article of the 18th inst., namely, 9*s.* per week. The conclusions arrived at by the sub-committee are as follows:—That the chief causes of the excessive rate of mortality in Liverpool are intemperance, indigence, and overcrowding; and their suggestions how to prevent these or mitigate their action are contained in the following quotation:—

"Assuming overcrowding to mean, not only the existence of too many people in a room or in a house, but also the massing together in narrow ill-ventilated streets and squalid courts too great a number of houses; and also assuming, what is incontrovertible, that such overcrowding, by its effects on the physical condition of the people, tends to encourage intemperance, immorality, and indigence; the remedies appear to be: to provide decent dwellings for the labouring classes; to break up those masses of crowded dwellings, by driving thoroughfares through and across them, to let in the light and air; to carry into further effect the provisions of the Sanitary Amendment Act of 1864, in opening up the close and confined courts, and if necessary to obtain further powers; to encourage cleanliness by securing an ample supply of pure water, always available; and to get rid altogether of the midden system, by converting as quickly as possible all privies into waterclosets." The committee further recommend that the Council should be asked to apply to Parliament for an act to control the sale of excisable liquors.

These are important recommendations. How far they will be acted upon remains to be seen. If but that one of them, about which there is less likelihood of any difference of opinion, was carried out—viz., that of driving thoroughfares through and across narrow, crowded, ill-ventilated streets—an immensity of good would follow.

As having an important bearing on another of the suggestions, I may mention that a memorial was presented yesterday to the magistrates, praying that no more licences be granted, as it was believed that owing to the increase in the number and magnitude of public-houses in the borough, drunkenness, poverty, crime, disease, and death had also been increased. This memorial, which was only originated about ten days ago, had in that short time received the astonishing number of 31,227 signatures of persons living in the town. At the same time a memorial from the medical men to the same intent was also presented. Yesterday was the first day of meeting of the magistrates for the granting of new licences, and every application was refused, a majority of the justices voting against the grant. If the majority of the magistrates will only attend regularly until all

applications have been heard, the probability is that the wishes of the memorialists will be carried out, and not a single new licence granted this year.

August 28th, 1866.

## NEWCASTLE-ON-TYNE.

(FROM OUR OWN CORRESPONDENT.)

IN the report of the Fever Hospital here for the past year, Dr. W. Murray says that "there have been 565 cases treated during the year, being 300 more than the last year, and 500 more than the average of previous years, so that the increase of work at the Fever House has been almost entirely due to typhus. Typhus fever has been steadily increasing in the town for the last three years; it is of an unusually severe type, and is highly infectious, consequently it has produced a very high mortality. The Fever House mortality is computed as 18·1 per cent., and the gross mortality of all typhus cases during the year would amount to as high as 22 per cent. The mortality seems to vary *pari passu* with advancing years; for instance, there were no deaths among the males under ten years of age, while on the other hand of over sixty years of age 60 per cent. died, and over seventy every case was fatal. It is also worthy of observation that up to middle life the mortality was greatest on the female side, but above that age the mortality among the males. The distribution of cases over the year, from May 1865, to May 1866, was as follows:—In May it was 16, with 5 deaths; in June, 14, with 1 death; in July, 13, with 2 deaths; in August, 27, with 5 deaths; in September, 30, with 8 deaths; in October it suddenly rose to 64, with 12 deaths; in November it rose again to 79, with 13 deaths; and in December it reached 96, with 24 deaths. From this time, owing to collateral circumstances, but not owing to any decrease of the epidemic in the town, the numbers fell to 63 in January, with 12 deaths; 60 in February, with 9 deaths; 54 in March, with 13 deaths; and 39 in April, with 11 deaths. On one occasion the number of patients in the hospital reached 60, and more than once as many as nine or ten cases were admitted between the daily visits.....The disease has been marked, first, by severe coma; second, by great exhaustion of the vital powers, demanding a very liberal allowance of powerful stimulants; third, by rapid decomposition of the tissues, and poisoning of the blood with the products of the chemical change. In most cases there was a cutaneous eruption, consisting of a diffused dusky mottling of the skin; and in the worst cases there was an abundance of true petechiæ, consisting of extravasated blood. In a few cases, while the other symptoms of typhus were strongly marked, there was no eruption. Black mortification of the hands and feet from the loss of vital power once or twice supervened. Boils, carbuncles, and suppurating glands were common. The disease usually ran a course of fifteen or twenty days." Dr. Murray attempted for one month to treat the disease without alcoholic stimulants, but was compelled to resort to their use again. Carbolic acid was freely administered in several cases, and seemed to lower the pulse and hasten the crisis of the fever; and digitalis was often of great use in sustaining the heart's action. Dr. W. Murray pays a grateful tribute to his colleagues for the assistance rendered him during this arduous period; at the same time he may be congratulated himself upon being spared to write this interesting report.

Newcastle-on-Tyne, Aug. 25th, 1866.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

SINCE the publication of my last letter, the cholera has been continuing its ravages in Paris, though the number of deaths has been slightly diminished by the continuation of showery weather and the lower temperature which has prevailed during the last fortnight. Nearly all the hospitals have received cases, but the one which has to bear the brunt of the attack is L'Hôtel Dieu, on account of its position. At this hospital two large wards (one male and one female) are full of cholera patients in all stages of the disease. Notwithstanding the utmost efforts of the physicians and internes, the average mortality is, I believe, about two-thirds of the patients admitted. At the commencement of the epidemic the treatment consisted chiefly of support by small doses of rum in strong tea. During the last week experiments have been made on the administration of small and repeated doses of sulphate of copper, with injections of the same drug. At present the results obtained do not warrant my giving any opinion on its merits. At Lariboisière some experiments have been made during the last week on the injection of saline solutions into the veins of cholera patients under the care of M. Hérard, but no success has followed this treatment. In fine, the practice in the French hospitals has at present shown nothing which promises a definite mode of treatment offering any success.

The mortality in Paris from cholera ranges between 100 and 120 daily, as far as I can learn.

From Amiens the reports are much more favourable, and the mortality has greatly diminished, but unfortunately MM. Jules and James, secretary and professor at the Amiens University, and MM. Boussard and Bouchut, internes, have succumbed to the disease.

Last week M. Gibert, the celebrated dermatologist, was carried off by cholera at Paris. His funeral was very numerously attended, and M. Hardy, his colleague at St. Louis, pronounced a discourse over his grave.

With reference to the treatment of cholera by saline injections, M. Colson, physician at the hospital of Beauvais, read a paper at the Academy on Tuesday last, containing an account of his own experiments on the subject. The liquid he used was composed of 1250 parts of distilled water, twelve parts of muriate of soda, eight parts of lactate of soda, and three parts of phosphate of soda, at a temperature of 42° centigrade. This injection into the median basilic vein was followed in many cases by a very rapid improvement in the pulse and appearance of the patient, but unfortunately this improvement was not permanent, and the patients soon collapsed into the same, or a worse state than before. In one case the injection was repeated five times with success. The general opinion of the Academy seemed to be against this mode of treatment, for which, by-the-bye, M. Colson does not claim the merit of novelty.

On Saturday last M. Hardy was to have given his last clinical lecture at the Hôpital St. Louis. Instead of lecturing, however, he showed his class the entire bathing establishment attached to this hospital. The baths are—ordinary hot and cold, sitting and plunge, hot and cold douches, vapour baths and douches (these latter being considered very efficacious in obstinate cases of acne), medicated vapour baths, and baths of mineral water. For the administration of baths of mineral water there is a most ingenious contrivance, invented by a physician at Lyons. It consists of a large square box, in which the patient sits, and is entirely enveloped. This box is connected by a tube with a small reservoir containing the mineral water required. Just at the end, where the tube opens into the box, is a small jet very similar to that of Dr. Richardson's apparatus for local anæsthesia, through which the air is forced by a powerful steam engine, and, coming in contact with the water as it leaves the tube, covers the patient with a perfect dew of mineral water. Though the theory of this appears excellent for economy of mineral water, in practice it is not found very efficacious, probably owing to the difficulty of getting the water at the same temperature as the natural spring.* After all the class had carefully examined the establishment, M. Hardy addressed to them a few parting words, which were most heartily responded to by all present, to whom M. Hardy has shown himself, without distinction of nation, uniformly polite and considerate.

There is now under the care of M. Verneuil at the Hôpital Lariboisière, a case of excision of the astragalus. The patient fell from a considerable height some four months ago. Alighting on his left foot he sustained a dislocation of the foot forwards, complicated with fracture of the astragalus, one half of which was protruded through a wound on the outer side of the foot. The rest of the astragalus was excised. Drainage-tubes were then introduced into and around the injured joint. The suppuration was very profuse, and continued for many weeks, but the patient recovered under stimulating treatment, and the wounds are now all healed. The deformity of the foot is very slight, and there is a certain amount of movement of the foot on the leg. The patient is soon going to attempt walking on this foot, so that the effect of the operation will be more easily appreciable.

On Friday last I saw a similar case operated on by another surgeon at Lariboisière. This patient had also sustained severe

* For a further account of the baths at St. Louis see a small book, called "A Winter in Paris," by Dr. Simms.

injuries to the foot, the ankle-joint being opened, the astragalus comminuted, and both malleoli being fractured. The surgeon removed all the fragments of bone from the wound, and sawed the tibia and fibula level. He adopted the same system of drainage as that used by M. Verneuil.

M. Jarjavay had a somewhat similar case at Hôpital Beaujon a short time ago, in which he had extirpated the astragalus in a young woman whose foot had been run over. The result in this case was very much the same as in that of M. Verneuil.

Paris, August 13th, 1866.

## MEDICAL TRIALS.

### MEDICAL FEES AND THE POOR-LAW BOARD.

A CASE of considerable importance to the medical profession, in regard to their contract fees as medical officers to parish unions, especially in cases of lunacy, has just been heard and decided upon at the Farnham County Court, Surrey, before H. J. Stonor, Esq., Judge. The case created considerable interest and excitement, inasmuch as it was calculated to establish a precedent for similar cases in future. The action was brought by Dr. Edward Powell, house-surgeon of the Farnham Union, who sought to recover from the Board of Guardians the sum of two guineas for certifying to the lunacy of two paupers, inmates of the workhouse, being two fees allowed for the same by the Poor-law Board, but which the Board of Guardians refused to pay, on the ground that the certificates were given by Dr. Powell in the performance of his ordinary duties, and without entailing any considerable inconvenience.

Dr. Powell conducted his own case, and Mr. W. Hollest, clerk to the guardians, appeared for the defendants.

The facts of the case, as detailed by Dr. Powell, were to the effect that on the 21st of August, 1865, he attended at the workhouse, before the chairman of the board, and in his presence, as a justice of the peace, certified to the lunacy of a pauper named Sarah Howell. In the month of March of the present year he also certified to the lunacy of a man named James Parritt, at the same place, and afterwards claimed the usual fee of one guinea in each case, to which, in accordance with his contract with the board, he was entitled. The guardians, however, rejected the claim, and he subsequently communicated with the Poor-law Board, from whom he received a letter, withholding any opinion as to the justice of the claim, and at the same time authorising him, if so advised, to enforce the demand elsewhere.

Mr. Hollest, having again stated the grounds on which the guardians refused the claim, contended that if Dr. Powell had been specially summoned to the house, or had been put to any great inconvenience, it would have altered the circumstances, but it was during his attendance at the house that the lunacy of the paupers was certified to. He also added that, according to the Debts Act of 1859, the claim in regard to the first certificate was not recoverable, inasmuch as it was not made within six months after it was incurred. The Poor-law Board were at liberty to extend that period to a twelvemonth if they thought proper, but they had not done so in the present instance, and even if they had done so the time would expire in the first instance in a few days.

His Honour stated that he took full cognisance of the Act of Parliament, and considered that the onus rested on Dr. Powell to show that the claim was in accordance with his contract with the guardians, which had been abundantly proved. He therefore gave a verdict for the plaintiff, with expenses, in the second fee, and observed that in the event of the Poor-law Board giving Dr. Powell permission to proceed with the first, as it had now exceeded the limits of the Debts Act, he would hear it again. There were other medical gentlemen in court, and the verdict was received with applause.

## Medical News.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Aug. 23rd:—

Clothier, Henry, Haslemere.
Longbotham, George, Seaton Carew, Durham.

The following gentlemen passed their first examination on Aug. 16th:—

Cuff, John Stanton, University College.
Wills, Douglas, Guy's Hospital.

And the following on Aug. 23rd:—

Cortis, William R., Guy's Hospital.

At the competitive examination, on the 8th inst., for the prizes in Botany annually given by the Society of Apothecaries, the successful candidates were—James Ryall Rouch, St. Bartholomew's Hospital, gold medal; Marmaduke Alexander Lawson, King's College Hospital, silver medal and a book.

UNIVERSITY OF LONDON.—The following are lists of candidates who have passed the respective examinations indicated:—

FIRST M.B. EXAMINATION.

ENTIRE.

*First Division.*

Anderson, Tempest, University College.
Cluff, James Stanton, B.A. Dubl., University College.
Loy, Thomas Richardson, University College.
May, Bennett, Sydenham College, Birmingham.
Ridge, John James, St. Thomas's Hospital.
Taylor, Frederick, Guy's Hospital.
Wagstaffe, William Warwick, B.A., St. Thomas's Hospital.

*Second Division.*

Addenbrooke, Edward Homfray, St. Bartholomew's Hospital.
Batt, Charles Dorrington, St. Bartholomew's Hospital.
Blackley, John Galley, Royal Manchester School of Medicine.
Crowfoot, Edward Bowles, St. Bartholomew's Hospital.
Fiddian, Alexander Paull, King's College.
Marshall, Henry Flamank, Sydenham College, Birmingham.
Nettleship, Edward, King's College.
Sanders, Richard Careless, London Hospital.
Willoughby, Edward Francis, University College.
Wyman, John Sanderson, Sydenham College and St. Bartholomew's.

EXCLUDING PHYSIOLOGY.

*Second Division.*

Heathcote, Rowland, Royal Manchester School of Medicine.
Hurlstone, Adam Payton, University College.
Lees, Joseph, St. Thomas's Hospital.
Seccombe, Edward Hepburne, King's College.
Yeo, Isaac Burney, King's College.

PHYSIOLOGY ONLY.

*First Division.*

Berridge, Edward William, St. Bartholomew's Hospital.
Bird, John Durham, Royal Manchester School of Medicine.
Raine, George Rolph, Guy's Hospital.

*Second Division.*

Bell, Cyril William Bowdler, B.Sc., Hull Medical School.
Dove, John Reuben Bathurst, London Hospital.
Eager, Reginald, Guy's Hospital.

INDIAN MEDICAL SERVICE.—The Military Secretary, India Office, presents his compliments to the Editor of THE LANCET, and begs to enclose a list of the candidates for H.M. Indian Medical Service who were successful at the competitive examination at Chelsea in March, 1866, and who have undergone a course of instruction at the Army Medical School, together with the total number of marks obtained at the examinations at Chelsea and at Netley.

| | *Studied at* | *Total Number of Marks. (Maximum 6000.)* |
|---|---|---|
| Cameron, L. ... | University of Edinburgh ... | 5060 |
| Griffith, G. ... | London ... ... ... ... | 5060 |
| Raye, D. O. C. ... | Ireland ... ... ... ... | 5036 |
| Gage, J. T. ... | University of Aberdeen ... ... | 4600 |
| Vesey, R. M. ... | University of Dublin ... ... | 4580 |
| Warburton, W. P. | University of Edinburgh ... | 4460 |
| Birch, E. A. ... | Ireland ... ... ... ... | 4370 |
| Palmer, D. P. ... | Ireland ... ... ... ... | 4330 |
| Keegan, D. F. ... | Universities of Dublin and London | 4135 |
| Galloway, W. W... | University of Aberdeen ... ... | 4098 |
| Eades, L. E. ... | Edinburgh and Dublin ... ... | 4090 |
| Gray, W. ... ... | University of Dublin ... ... | 4085 |
| Hughes, D. E. ... | University of Edinburgh ... | 3945 |
| McKenzie, S. C.... | University of Edinburgh ... | 3938 |
| Holmested, T. ... | London ... ... ... ... | 3853 |
| Macpherson, J. ... | University of Aberdeen ... ... | 3770 |
| Bowman, R. ... | Ireland ... ... ... ... | 3767 |
| Laing, A. ... ... | Edinburgh ... ... ... ... | 3760 |
| Miller, A. H. ... | Edinburgh and Dublin ... ... | 3706 |
| Cody, T. ... ... | Edinburgh and Ireland ... ... | 3670 |
| Nanney, L. C. ... | London and Glasgow ... ... | 3637 |
| Raby, J. ... ... | London and Edinburgh ... ... | 3395 |
| Shannon, P. J. ... | Ireland ... ... ... ... | 3130 |
| McVittie, C. E. ... | Edinburgh and Ireland ... ... | 3023 |
| Cullinan, C. M. ... | Ireland ... ... ... ... | 2955 |
| Mayer, H. G. ... | Edinburgh and Ireland ... ... | 2955 |
| Rickard, F. M. ... | London ... ... ... ... | 2720 |
| Bateman, D. F. ... | Edinburgh ... ... ... ... | 2590 |

THE deaths from cholera in Berlin have been 3586 since the beginning of the epidemic.

SINCE the passing of the Cattle Act the number of cases per week has diminished from 15,000 to 160.

THE foundation stone of a new lunatic asylum for Newcastle-on-Tyne was laid a few days ago.

ACCORDING to official statements there still remain in the Prussian hospitals between 33,000 and 34,000 sick and wounded.

THE births in London last week were 2042 children. The deaths registered were 1477. The deaths in the present return exceed the estimated number by 173.

THE rate of mortality in Liverpool last week was 56 per 1000. According to the judicial statistics there are 3100 drunkards in this city.

ON Sunday the Bishop of Chester again visited the cholera hospital at Liverpool, and preached twice, the collections at each being devoted to the relief of the sufferers.

AT the police-courts during the week several persons have been convicted under the provisions of the Sanitary Act for overcrowding lodging-houses.

A NOVEL cricket match has been played between the patients and staffs of the Laverstock and Fisherton Lunatic Asylums, at the Salisbury Cricket-ground.

THE sudden death is announced of Mr. Millard, a Poor-law Guardian of Lichfield, who died whilst proposing an increase of salary to one of the medical officers.

ACCORDING to the latest accounts the cattle plague has appeared in 464 localities in the county of Cheshire, and during the past week cases are reported from 13 townships.

CHOLERA is abating in New York, but is raging fearfully through the west and south-west. The *Bavaria* has arrived out, and been placed in quarantine. She has had eight cholera cases and three deaths on board.

PROFESSOR SIMONDS, after examining a flock of sheep at North Walsham, Norfolk, states the disease to be not of the nature of the cattle plague, but to be one essentially affecting the pulmonary organs.

ON Thursday last a special report was presented at the Sessions House, Clerkenwell, from the committee of visitors of the County Lunatic Asylum at Colney Hatch, respecting the sewage of that establishment.

ON Tuesday the Bishop of London and Mrs. Tait visited the temporary hospital for cholera in St. Giles's, the Refuge in Newport-market, and other charitable institutions in the district.

ACCORDING to Professor Frankland's report the whole of the waters for the metropolis, supplied from the companies' mains in August, were again, as in last month, free from turbidity, when drawn.

IT is a curious fact reported from the South that the sudden transition from slavery to freedom, together with the sufferings of the negroes occasioned by the war, have filled the lunatic asylums to overflowing.

BARONESS SEYDLITZ, superintendent of one of the many companies of Prussian ladies who have formed themselves into charitable bands for nursing the wounded, is now, with her division of benefactresses, stationed in the hospital tents of Kœniginhop.

THE police have discovered in the Rue des Jardiniers a slaughter-house for horses, which daily sends its products to market as beef. Two live horses were found on the premises. A journeyman butcher was arrested, and seals placed on the doors by the police.

LOCAL ETHEREAL ANÆSTHESIA.—A series of operations have been performed by M. Demarquay, at the paying hospital of Paris, advantage being taken of pulverized ether. Dr. Richardson's apparatus was employed with a slight modification. Instead of the two india-rubber balls, only one is used, and the air is forced into it by a small air-pump. M. Demarquay says that with the pump an ounce of ether is vaporized in one minute. The pump is worked with more or less energy, according to the thickness of the jet.

BY the latest reports cholera is diminishing in almost all parts of the Danubian principalities.

A KIND of rinderpest has broken out in Yorkshire amongst sheep and pigs.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—The following gentlemen have been appointed by the committee vice-presidents of this hospital:—Sir William Fergusson, Bart., F.R.S.; Dr. Arthur Farre, F.R.S.; and Dr. Jenner, F.R.S. Sir Charles Locock, Bart., F.R.S., has many years occupied a similar position.

CAUSES OF DEATH.—More than half the deaths of every year in England are from one or other of ten causes: phthisis, bronchitis, pneumonia, heart disease, old age, convulsions, atrophy and debility, scarlatina, typhus, and diarrhœa. Of all these diseases, phthisis is the most extensively fatal. Half a million of persons die in England in a year.

SEVERAL druggists were summoned before the magistrates at York upon informations preferred by the Board of Inland Revenue for selling methylated spirit without a licence. The magistrates convicted in all but one case; they remitted the penalty to one-fourth, and recommended the whole of the cases to the board in London for consideration.

TYPOGRAPHICAL CURIOSITY.—An amusing error of a careless compositor appears in the columns of a leading evening paper published in Paris, which has excited no small amount of merriment at the expense of a man of great talent. The following paragraphs intended to have been printed *separately* were by some blunder so arranged that they read consecutively:—"Dr. —— has been appointed head physician to the Hôpital de la Charité.—Orders have been issued by the authorities for the immediate extension of the cemetery of Mont Parnasse; the works are being executed with the utmost dispatch."

THE MOA.—The discovery of the remains of a moa is recorded as follows by the *Nelson Colonist*:—From Okarita, the most southern of the new gold diggings settlement on the West Coast, it is reported that a miner has discovered the skull and other parts of the bones of a moa at a spot near Cook's River. He brought the skull to Okarita. The skull itself measured quite two feet in circumference, with proportionate breadth, and when the portion of the beak was affixed in the sockets, from which clearly it had come, the length from the back of the skull to the extremity was about twenty inches. The bone was light, but had not been exposed for a very long period, inasmuch as some of the gelatinous portion could be perceived, and the perfect dryness indicative of a very protracted exposure did not exist.

RABIES IN MAN, INDUCED WITHOUT ANY BITE; INCUBATION OF ONE YEAR AND SIX DAYS.—A man, aged sixty-nine, was scratched on the dorsum of the hand by the claws of a dog, and to heal the wound he made another dog lick the injured hand. Soon afterwards this dog was declared rabid and killed. The man became alarmed and used several quack remedies; his mind was soon easier, but just one year and six days after the accident he fell suddenly into a swoon, and two days afterwards displayed the usual laryngeal symptoms, and died in a couple of days after having had terrible fits. (Annales de la Soc. Méd. Chir. de Liège.) The incubation is certainly worth noting; but the absence of the bite is not so extraordinary. The wound had been made by the claws of the first dog, and the saliva by the second (rabid) dog was of course rapidly absorbed by the denuded surface.

A VALUABLE EXPERIMENT.—M. Bousquet, the eminent director of vaccination at the Academy of Medicine at Paris, lately delivered a discourse before that learned body on the practice lately introduced of propagating, for human use, the vaccine matter upon heifers. In the course of this speech, which is rather unfavourable to this practice, M. Bousquet said:—"The head surgeon of the Albi Hospital (South of France) was telling me a few days ago, that, having come in contact with syphilitic patients who had not been vaccinated, he made punctures with a lancet charged with vaccine matter by the side of the syphilitic ulcerations. Vesicles formed in due time, the lymph of which he inoculated upon himself and others, the operations being followed by perfectly regular vaccine vesicles." Hence it appears that syphilis cannot at will be communicated by vaccination; and it seems that such contamination does take place when most apprehended. These circumstances are calculated to suggest many reflections.

## MEDICAL APPOINTMENTS.

J. A. HAYDEN, M.R.C.S.E., has been appointed Resident Medical Officer to the Charing-cross Hospital, vice J. G. Mackinlay, L.R.C.P.L., resigned.

A. JACKSON, M.R.C.S.E., has been appointed Surgeon to the Sheffield Public Hospital and Dispensary, vice S. Parker, M.R.C.S.E., resigned.

J. Z. LAURENCE, M.B., F.R.C.S., has been appointed Ophthalmic Surgeon to St. Bartholomew's Hospital, Chatham.

W. H. SPENCER, B.A., has been appointed Lecturer in Comparative Anatomy at the Charing-cross Hospital Medical College.

H. G. STEWART, M.D., L.R.C.S.Ed., Assistant Medical Officer at the Crichton Royal Institution, Dumfries, has been appointed Medical Superintendent of the Borough Lunatic Asylum, Newcastle-upon-Tyne.

# Births, Marriages, and Deaths.

## BIRTHS.

On the 14th ult., at Newcastle-on-Tyne, the wife of Dr. Ellis, of a son.

On the 22nd ult., at the Royal Hospital, Greenwich, the wife of Dr. Smart, of a daughter.

On the 24th ult., at Calverley, near Leeds, the wife of Wm. Kitto Giddings, M. & L.M. R.C.S.E., of a son.

## MARRIAGES.

On the 6th of June, at the residence of the bride's father, James Appleyard, M.R.C.S.E., L.S.A.L., of Mortlake, to Mary S., eldest daughter of John Macfarlane, J.P., Surgeon and Squatter, of Ee-Yeuk, near Mortlake, Victoria, Australia.

On the 9th ult., Myrry Clarke, Esq., Surgeon, of Jamaica, to Margaret Ann, only daughter of Dr. Hawkins, of King's Lynn.

On the 15th ult., at Blendworth Church, Horndean, Hants, Robert Liveing, M.D., Assistant-Physician at the Middlesex Hospital, youngest son of the late Edward Liveing, Esq., Surgeon, of Nayland, Suffolk, to Adelaide Mary Dorothea, youngest daughter of the late Admiral Hawker, of Ashford Lodge, Petersfield, Hants.

On the 22nd ult., at St. John's Church, Holmfirth, Christopher B. N. Dunn, Esq., Surgeon, of Crich, Derbyshire, to Ellen, fourth daughter of Edw. Trotter, Esq., Surgeon, of Holmfirth.

On the 22nd ult., at Newcastle-on-Tyne, John Gregory White, M.D., of Woodstock, to Jane Emily, daughter of the late — Richardson, Esq., of South Ashfield, Newcastle-on-Tyne.

## DEATHS.

On the 11th ult., after a week's illness, John Henry Steele Walker, Esq., of Holme, Westmoreland, aged 44.

On the 22nd ult., at Exeter, William Land, M.D., aged 77.

On the 26th ult., at Gloucester House, Ledbury, John Tanner, M.D., aged 60.

# Medical Diary of the Week.

### Monday, Sept. 3.

ST. MARK'S HOSPITAL FOR FISTULA AND OTHER DISEASES OF THE RECTUM.—Operations, 9 A.M. and 1½ P.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

### Tuesday, Sept. 4.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

### Wednesday, Sept. 5.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.

### Thursday, Sept. 6.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 1 P.M.
ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
LONDON SURGICAL HOME.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

### Friday, Sept. 7.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.

### Saturday, Sept. 8.

ST. THOMAS'S HOSPITAL.—Operations, 9½ A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
ROYAL FREE HOSPITAL.—Operations, 1½ P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

# To Correspondents.

*Enquirer*, (from Western Parts).—1. Most of the hospitals in London are supported by voluntary contributions. St. Bartholomew's and St. Thomas's are endowed; so is Guy's.—2. No civil hospital in England receives a Government grant.—3. Some in Ireland receive grants of public money.—4. Not in England as a rule; in some, however, small salaries are given.—5. "The Ear in Health and Disease."

*John Robinson, B.A., L.R.C.P. Edin.*, (Runcorn.)—We cannot, after the lapse of twelve months, go into the case between Mr. Batterton and Mr. Robinson. Mr. Robinson should have complained sooner.

*A Medical Assistant.*—A month's notice is that generally acted upon.

### GREEK WINES.

*To the Editor of* THE LANCET.

SIR,—A correspondent, signing himself "An Army Surgeon of Twenty-five Years' Experience," in a letter in your journal of August 4th, ascribes an attack of cholera at the Piræus in 1854 to the infested atmosphere coming from a building about 300 yards off, in which were many cholera patients belonging to the French; and in a subsequent communication, dated August 21st, he further ascribes the preliminary diarrhœa to the "acridity" of the Greek wine used by the British force under his medical charge.

As it strikes me that the letter of your correspondent may, unintentionally on his part, tend to create a prejudice at this moment against Greek wine, in which I have great faith in a dietetic point of view, I hope you will permit me to say a few words on its behalf.

Whatever Greek wine may have been at the Piræus in 1854, especially under the manipulations of native wine-sellers, who, according to the writer's account, were in the habit of flavouring it with coppers, this much is certain, that the Greek wine obtainable in London is not only free from any trace of copper, but is absolutely free from any adulteration whatever, as may be seen by the analysis made by Dr. Druitt and Mr. Griffin (a Fellow of the Chemical Society). At a time when the British public are awaking to the fact that the wines of our fathers, port and sherry, from the highest to the lowest quality, are simply "doctored" articles, as much as the famous Hambro' of the green windows, the purity of Greek wines should be borne in mind by medical men desirous of recommending to their patients a wine that exhilarates without stupefying, at a cost more moderate than the cheapest vintages of Xeres or Oporto. The Greek wines possess twenty-five per cent. of natural spirit, the produce of acetic fermentation, and not the added alcohol, which gives the fervid flavour and strength to port and sherry. That Greek wine is "acrid," may have been the case in 1854; but I, in common with all drinkers of this excellent wine, can safely say there is no suspicion of acridity in the article supplied by the Greek Archipelago Wine Company, the only importers, I believe, in this country.

If we were to be tabooed from partaking of the gifts of Providence, to which the production of cholera has been "attributed" by various writers, Covent-garden may as well shut up at once.

I trust "An Army Surgeon of Twenty-five Years' Experience" will not be offended if I say that the opinion of even a gentleman of his long standing in the profession and service can be of little more value than that of his neighbours in respect of the inciting cause of cholera, as it is admitted on all hands that we are as absolutely in the dark on this subject at this moment as when the disease first made its appearance amongst us.

I remain, Sir, yours truly,

Kensington, August 22nd, 1866. M.R.C.P.

IN reply to several inquiries as to the sanitary handbills for Working Men's Clubs, drawn up by Mr. Hall and Dr. Aldis, we may state that they have been printed at the expense of the Ladies' Sanitary Association, and are sold at cost price at the Office of the Working Men's Club and Institute Union, 160, Strand, and the Office of the Ladies' Sanitary Association, 8, Pool-street, Belgrave-square.

*Dr. Wilkinson (Blyth)* is thanked for his communication.

### EXTENSIVE VASCULAR MARK.

*To the Editor of* THE LANCET.

SIR,—If your correspondent, "H. H. B.," and his patient will have the courage to apply and submit to a simple painting of the part affected with pure nitric acid on alternate days for a week or two, I am quite sure they would both be pleased with the result. Your obedient servant,

August, 1866. A. W.

*A Country Fellow.*—The diploma advertised for sale was an American document, having the signatures of the examiners, but leaving a blank space for the name of the purchaser to be filled in: a proceeding so dishonest that the attention of the American Minister has been called to the affair by the authorities of the College of Surgeons.

*Fair Play.*—It would have been more regular and friendly if B. had called on A. Was no cause assigned for the dismissal of A.?

### BIOGRAPHY OF A CENTENARIAN.

*To the Editor of* THE LANCET.

SIR,—Under this heading a correspondent, in your impression of Aug. 11th, gives a sketch of an old man, reported to have died at the age of 106 years. The only proof of his having attained to this age is an entry in a Bible, by whom made does not appear. Indeed it is doubtful, from your correspondent's statement, whether he actually saw the entry in the Bible, or merely a "memorandum" said to have been copied from the Bible.

"Otium sine Dignitate" would confer a favour on those interested in the subject of longevity if he would ascertain in what parish the old man was baptized, and obtain a copy of his baptismal certificate. Nothing else can be accepted as *proof* in such a case. Your obedient servant,

August 24th, 1866. D.

*Mr. John Todd.*—If there be no *legal* authority for the order, there is a higher one, that of *humanity*. Are the guardians of the Rothbury Union prepared to ignore that? If so, we should wish to be informed of the fact.

*Dr. C. C. Richards'* report of a case of "Hydatids of the Liver" shall be published next week.

*J. H.*—It is doubtful. The question has never yet been settled by a competent tribunal.

*Mr. W. R. Nuttall.*—We are not aware that the case has been published.

### THE PROFESSION IN VICTORIA, AUSTRALIA.

*To the Editor of* THE LANCET.

SIR,—Several of my medical brethren in Victoria, Australia, were anxious that I should report to THE LANCET on my return home the overcrowded state of the profession there, and the demoralised state of many of its members. Many are under the impression that medical men are induced to go out there from false reports respecting the chances of success, and, finding themselves disappointed, take to drink and debauchery for solace, or fall into it from sheer depression. I am inclined to think, however, that the demoralised find their way out there from losing their respectability at home, and from the abominable way in which ships are supplied with their doctors. In Victoria, and indeed in all the Australian colonies, there are as excellent medical men as can be found out of the great centres of science; but it is extremely lamentable to find, rather as a rule than an exception, that *doctors are drunken and disreputable in the interior of the colonies*. The very bad effects upon the general weal of the profession is the loss of status in the public opinion, and the reduction of fees by the men out at elbows attending for anything that will supply them with drink and absolute necessaries (of which they generally stand in need); and when those Societies, which now extend wherever there are a score or two of artisans and labourers, advertise for doctors at a rate of payment degrading to the profession, they are the ones to take the lowest figures. A Medical Board to superintend the engagement of ship doctors might be of great benefit, and the establishment of the Medical Association proposed by Dr. Murray would be the greatest benefit devised for the medical profession.

In agreement with the promise I made to some of my brethren before leaving Victoria, I advise medical men to think well before they emigrate to Australia, and to have some tangible prospect before them should they do so; for although I was a successful practitioner there, I can bear testimony to the lamentable state of many of our profession in the colonies.

I remain, Sir, yours, &c.,
August, 1866. H. H. D.

*Aqua Pura.*—1. On all public occasions. A Mayor's ball or dinner would be such.—2. There is no such case on record so far as we can ascertain.—3. Refer to the advertising pages of THE LANCET.

*Lignum.*—It is doubtful whether, under the circumstances, a fee can be recovered at law.

*X. Y. Z.*—Mr. E. Saunders on the "Teeth as a Test of Age."

### NAVAL MEDICAL SERVICE.

*To the Editor of* THE LANCET.

SIR,—Allow me through your columns to caution all young medical men against being captivated by the late Admiralty circular. Naval medical officers are now in a worse position than ever with respect to retirement, as the much-prized boon of being allowed to retire on half pay on completing twenty-five years' service has been withdrawn, and none will accept the pittance offered them after twenty years.

Already it has come to my knowledge that the captains of two ships in this port (*Royal Sovereign* and *Bellerophon*) have refused to carry out that portion of the late circular relative to the choice of cabins.

Our demands are not immoderate. We require a fair share of honours, as conferred on our more fortunate brethren in the army, and, above all, a competent retirement, say £1 a day after twenty years' service—not too great a reward for suffering so long all the discomfort and indignities which seem to be inseparable from the lot of so-called civilians on board a man-of-war.

Many victims, trusting to the *punica fides* of a *liberal* Admiralty, were induced to remain in the service by the Warrant of 1859, now torn to shreds, and have long since deeply regretted their misplaced confidence.

Let others take warning from one of the above, and avoid entering her Majesty's navy as at present constituted. Yours, &c.,
Portsmouth, August 27th, 1866. CREDE EXPERTO.

*A Young Physician* (Plymouth) must indeed be ignorant if he can believe any such nonsense. Any elementary work would have enabled him to set himself right on the subject.

*A. D.*—Certainly. It is a circumstance by no means uncommon.

### ASSURANCE AGAINST SICKNESS.

*To the Editor of* THE LANCET.

SIR,—I have on so many occasions seen noticed in your valuable journal the matter of assurance against sickness, that I fancy it is not generally known that any of our profession or otherwise can insure in the Prudential for any sum weekly up to £3, without any of those absurd regulations which would prevent the majority of men from joining the British Medical Association Benefit Society or Clergy Mutual. I have for some years insured against sickness to the full amount allowed by the British Prudential, and I may be permitted to state that I have every confidence that should the weekly allowance be needed, it will be forthcoming either this side sixty or the other, and without regard to the length or duration of illness or incapacity. The Prudential has for some years advertised in THE LANCET; but I have often noticed they never say anything about "professional men or others can insure against sickness." A Society which jumps up from £50,000 a year to £133,000 in a few years is worthy of some little confidence in my humble opinion, and this without the formidable host of canvassers and their expenses all over the country, sapping the life-blood out of it.

I am, Sir, yours &c.,
Brixworth, Northamptonshire, Aug. 16th, 1866. F. L. HARPER.

*Douglas, W. E., M.D.*, (Gloucestershire.)—The Treasurer is a very respectable medical practitioner. We do not know the other officers of the Society.

*An Odd Fellow.*—It is generally regarded as an article of diet.

### SMALL-POX AND VACCINATION.

*To the Editor of* THE LANCET.

SIR,—During the last thirteen years I have had small-pox imported into my practice on seven distinct occasions. My invariable practice has been to vaccinate every person above six years of age living near, whether they have been vaccinated or not, and also, of course, any who have not been vaccinated. During these thirteen years the only cases of small-pox I have lost have been two, and both these unvaccinated. Taking the above-named precaution, I have never had the disease spread to a second house, and the cases that have occurred in the revaccinated have been slight.

Lately a girl (unvaccinated) came home from her place in Reading with small-pox. It proved an attack of the most violent confluent form. She is recovering. Immediately I vaccinated every person who had not been so protected; and as soon as I could get a supply of vaccine, I vaccinated all the adults in the row of cottages where the girl lived, and her father among the number (ten days after the girl came home). He had a "good arm"; but three days after the eighth day he complained of headache, backache, sickness, &c, and had several pustules about the body first, and then the face; but the general symptoms subsided in two days, and in five or six he felt quite well. There have been no other cases.—Yours obediently,

EDW. JAS. BLYTH, M.R.C.S.

Whitchurch, Reading, August 21st, 1866.

P.S.—The fact of *one* attack of small-pox not protecting the patient from a second invasion of the disease must be a palpable reason why vaccinia is not a complete protection *against* small-pox; but the fact of the mortality being so vastly lessened must be a weighty argument in favour of the mild operation of vaccination, which one would think must weigh even with the prejudiced.

*Mr. J. H. Graham.*—We know nothing of the person named, and therefore cannot recommend him.

*R. K.*, (Savile-row.)—The communication has great merit, but is scarcely suited for the pages of a medical journal.

### INSTITUTION FOR DIPSOMANIACS.

*To the Editor of* THE LANCET.

SIR,—Can any of your readers inform me as to any institution where male cases of dipsomania are treated? I shall be obliged by particulars of any.

Your obedient servant,
August, 1866. M.D., F.R.C.P.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Hancock; Mr. John Wood; Mr. Holmes Coote; Mr. Skey; Mr. Lockhart Clarke; Mr. Curgenven; Mr. J. Z. Laurence; Dr. Althaus; Dr. Acland, Oxford; Dr. Hyde Salter; Dr. J. Arnott; Dr. Brook; Mr. O'Reilly; Mr. Hallett; Mr. Harrison, Ormskirk; Mr. Atkinson; Mr. H. Smith, Derby; Dr. Bruen; Dr. Hawkins, Lynn; Dr. Compson, Woodstock; Dr. Nicholson, Oldham; Mr. Beauland, Durham; Mr. Prosser, Bromsgrove; Dr. Fowler, Burghead; Mr. Ward; Mr. Giddings, Calverley; Mr. Forster; Dr. Knight, Edinburgh; Mr. Oliphant; Mr. Mather; Dr. Eshelby; Mr. Hardy; Mr. Paton, Ayr; Mr. Lumley; Mr. Johnson, Lancaster; Mr. Salt, Birmingham; Mr. Fenn; Mr. Long, Aberdare; Dr. Woodforde, Bromley; Mr. Dudley; Mr. Jackson, Sheffield; Mr. Hemming; Dr. Fry; Mr. Ayres; Mr. Humphrey; Mr. Logan; Dr. Deane, St. Ives; Dr. Land, Exeter; Mr. Beaney, Melbourne; Dr. Reed; Mr. Orton, Bellary; Mr. Ashton, Kilmore; Mr. Ware; Mr. Donald, Sligo; Dr. Maxwell, Stickney; Mr. Armstrong, Beeth; Mr. Jollye, Donington; Mr. Weller; Mr. Wallis, Dublin; Mr. Chambers; Dr. Barder, Bristol; Mr. Goolden, Huddersfield; Dr. Beckett; Mr. Lilly; Mr. Knight, Brill; Mr. Powne; Mr. Loe, Leeds; Mr. Buck; Mr. Woods; Mr. Heisdon, Bury; Mr. Bain; Dr. Nichols; Dr. Kelso, Lisburn; Dr. Bennett; Dr. Hurford; Mr. Nuttall; Dr. Bree; Mr. Taylor; Dr. Richards; Dr. Gale; Mr. Hartley; Dr. Rootes, Ross; Mr. Gross, Southampton; Mr. Higgins, Cranford; Mr. Morgan, Bristol; Mr. Alford, York; Mr. Todd, Rothbury; Mr. Little; Dr. M'Closky; Mr. Trenerry, Gibraltar; Mr. Ewen; Mr. Favell, Sheffield; Mr. Armfield, Douglas; Mr. J. F. Reid; Mr. Hodson; Mr. Pond; Mr. Laird, Rugby; Mr. Drewry; Mr. Haworth, Keighley; Mr. Warton, Weymouth; Dr. Kingsford; Dr. Tanner, Ledbury; Mr. Thornhill; Mr. Stothard; Mr. Denyer; Mr. Robertson, Rochester; Mrs. Hutchinson, Tetsworth; Mr. J. Johnson, Oldham; Mr. Tippins; Dr. Willing; Dr. Lymen, Paris; Mr. Carnie; Mr. D. R. Jones; The Secretary of the Sydenham Society; L. M.; An Odd Fellow; A. F. A.; G. S.; S. W. B.; A Medical Assistant; A. W.; Vindex; D.; The Secretary of the India Office; A Practical Man; A. D.; J. L.; Viator; Aqua Pura; M.R.C.P.; J. H.; B. W.; Crede Experto; G. L.; A Young Physician and Constant Reader; Fair Play; Lignum; H. S.; X. Y. Z.; &c. &c.

THE *Yorkshire Post*, the *Liverpool Journal*, the *Lincolnshire Chronicle*, the *St. Pancras News*, the *North British Daily Mail*, the *York Herald*, the *Medical Record* (New York), and the *Leicester Mercury* have been received.


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